SONY KV-27VX1MT/P

MODEL

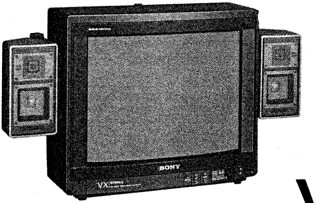
SERVICE MANUAL

1526

KV-27VX1P
RM-646/SS-X4(PX)

SERVICE MANUAL

PX Model
Chassis No. SCC-A57A-A



December, 1986

VX CHASSIS

Note: The service manauls for RM-646 and SS-X4 (PX) have been issued separately.

SPECIFICATIONS

Television standard	CCIR system B/G and H	CCIR system I	EIA system M
Color system	European PAL	UK PAL	American NTSC
Channel coverage			
Low VHF band	VHF: E2–E4 Cable TV: S1–S3, M1	—	VHF: A2–A6, J1–J3
High VHF band	VHF: E5–E12 Cable TV: M2–M10, U11–U20	—	VHF: A7–A13, J4–J12 Cable TV: A-8 to W
UHF	E21–E68	B21–B68	A14–A78, J13–J62

Picture tube

KV-27VX1P
27-inch (approx. 68 cm) Trinitron tube (approx. 64 cm picture measured diagonally) 114-degree deflection

Peak music power output
140 W

Inputs
VIDEO-1, -2, -3
VIDEO:
BNC connector, 1 Vp-p, 75 ohm
AUDIO:
phono jack, –5 dBs, high impedance

Output
MONITOR OUT
VIDEO:
BNC connector, 1 Vp-p, 75 ohm
AUDIO:
phono jack, –5 dBs, low impedance

Power requirements 110–240 V AC, 50/60 Hz

	KV-27VX1P
Power consumption	165 W
Dimensions	636 × 563 × 471.5 mm (w/h/d) (250½ × 221¾ × 185¾ inches)
Weight	42 kg (99 lb 4 oz)

Accessories supplied
- Speakers (1 pair)
- Remote Commander RM-646 with 2 IEC designation R6 batteries (1)
- UHF/VHF mixer EAC-53 (1)
- Power cord plug adaptor (1)
- BNC connector (1)

Design and specifications are subject to change without notice.

MICROFILM

TRINITRON® COLOR TV

SONY®

CTV

TABLE OF CONTENTS

Section *Title* *Page*

1. OUTLINE

1-1. Location of Controls 3
1-2. Set-up 4

2. CIRCUIT ADJUSTMENTS

2-1. Safety Related Adjustments 5

3. EXPLODED VIEWS

3-1. Bezel 8
3-2. CRT 9
3-3. Chassis 10

4. ELECTRICAL PARTS LIST 11

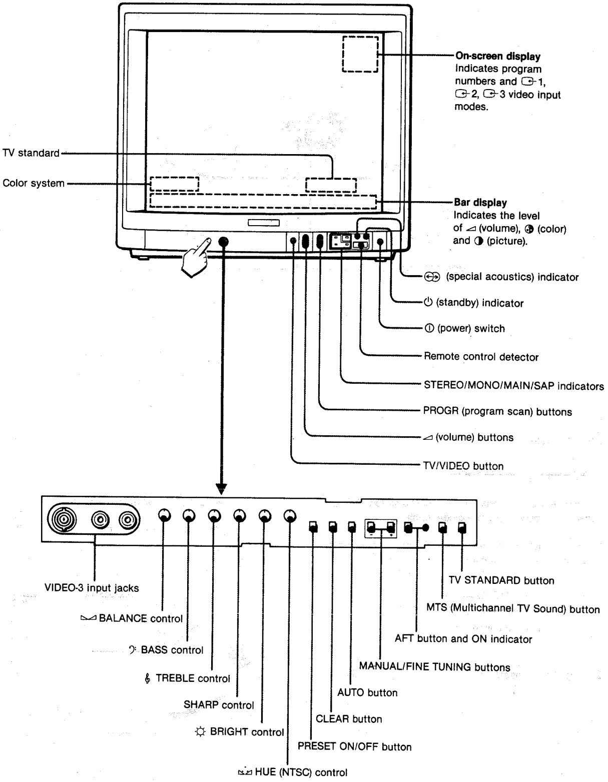
SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

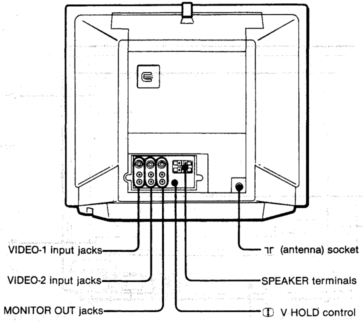
SECTION 1
OUTLINE

1-1. LOCATION OF CONTROLS

Front



Rear

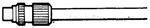


1-2. SET-UP

ANTENNA CONNECTION

To connect a VHF antenna or a combination VHF/UHF antenna—round 75-ohm coaxial cable

1 Attach the antenna end to an IEC antenna connector (commercially available).

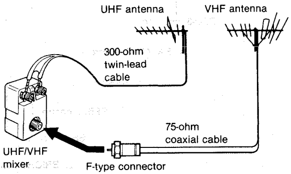


IEC antenna connector

2 Plug the connector into the ⊤ (antenna) socket.

To connect both VHF and UHF antennas

1 Attach the antenna ends to the supplied UHF/VHF mixer.



2 Plug the mixer into the ⊤ (antenna) socket.

SECTION 2
CIRCUIT ADJUSTMENTS

2-1. SAFETY RELATED ADJUSTMENTS

⧓ R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT

The following adjustment should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R506, R507, R818, R831, R832, R834, R835, R836, R837, R838, R839, R840, R841, R842, R843, R857, R858, R859, D831, D832, Q831, Q832, Q833, Q834, IC501.

1. Preparation before confirmation.

(1) Turn POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.

(2) Confirm that the voltage of the protector terminal of H.V.R is 15.50 ±2.50 V dc when the set is operating normally with 120VAC supply.

2. Hold-down operation confirmation.

(1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 ±30 μA with PICTURE and BRIGHTNESS etc. controls.

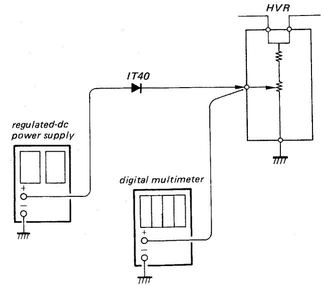
(2) Apply DC voltage of over 14.80 V gradually to the protector terminal of H.V.R via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.

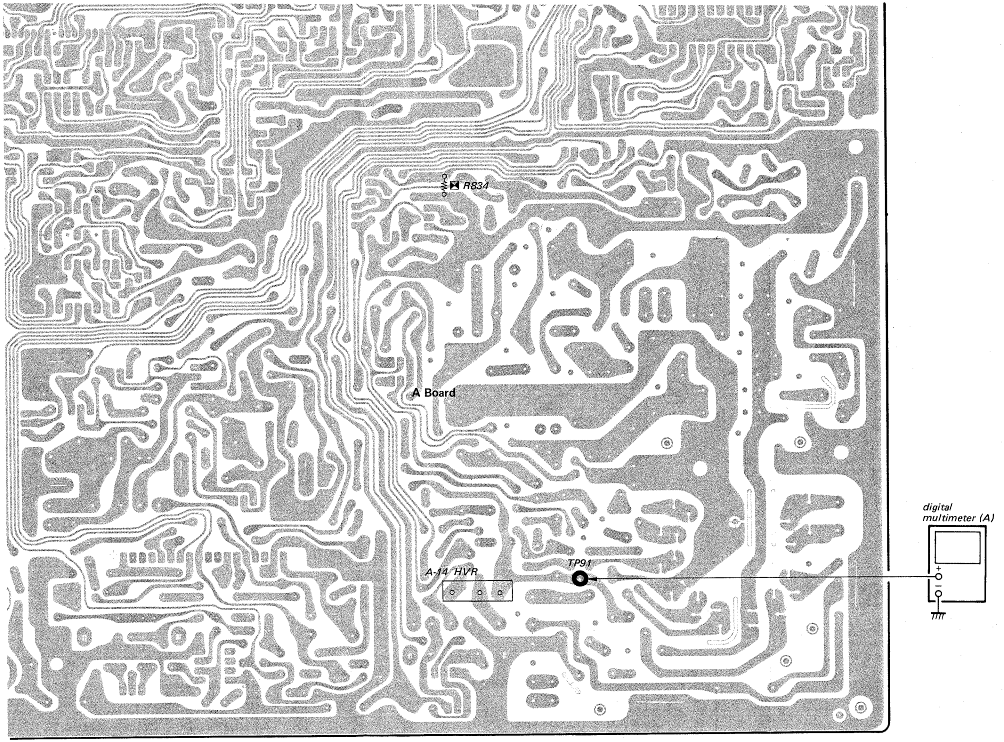
Note: *When the hold-down circuit starts operating switch OFF the POWER of the set immediately.*

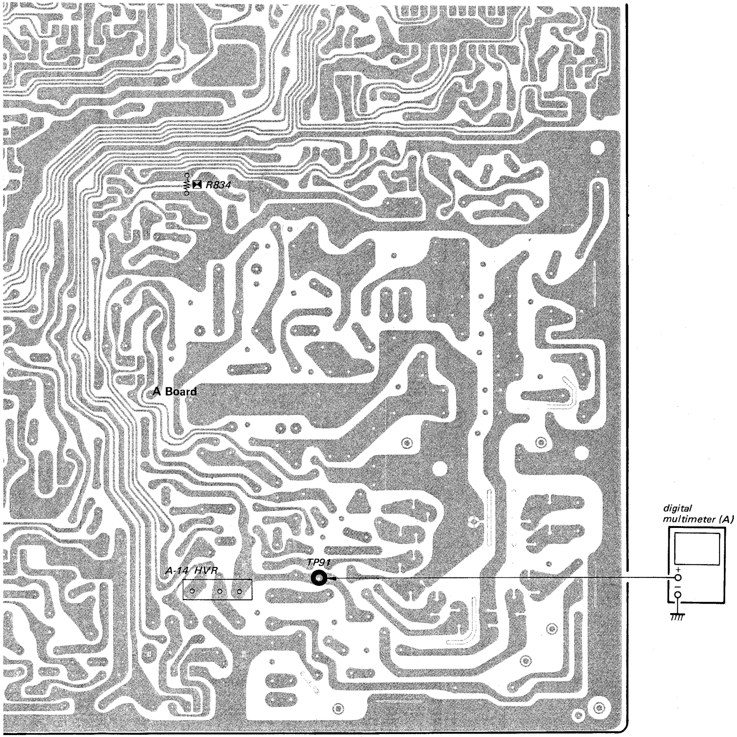
(3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 ±50 μA with PICTURE and BRIGHTNESS etc. controls.

(4) Apply DC voltage of over 16.00 V gradually to the protector terminal of H.V.R via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.

Note: *When the hold-down circuit start operating switch OFF the POWER of the set immediately.*







+B MAX ADJUSTMENT ⧓*R683*

The following adjustment should always be performed when replacing the following components (marked with ◪ on the schematic diagram).

R634, R654, R655, R665, R671, R683, RV601, D654, D655, IC601, IC602, IC651.

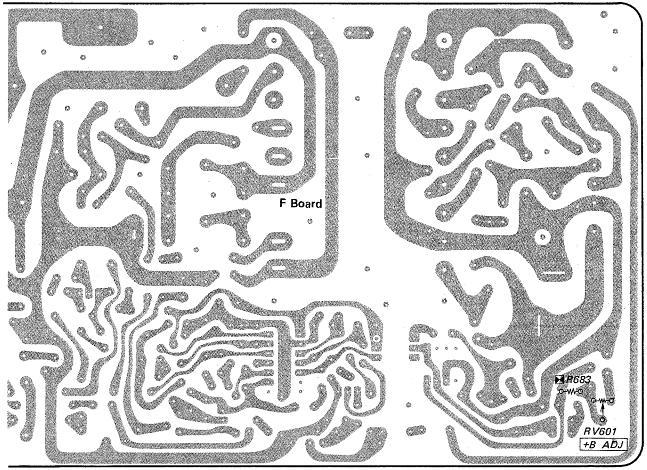
1. *Feed in a dot pattern signals.*
2. *Set the controls as shown below.*
   PICTURE control . . . . minimum
   BRIGHTNESS control . . . . . minimum
3. *Readjust the variable auto transformer for* $264^{+5.0}_{-0}$ *V ac on the digital multimeter.*
4. *Adjust RV601 so that the voltage of digital multimeter (A) is maximum.*
5. *Confirm that the voltage reading on the digital multimeter (A) is less than 141.0 V dc.*
6. *If the step 5 is not satisfied, select the value of R683 so that the specification is met.*

CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR)

The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).

* *This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit readjustment for replacement of parts marked ◪.*

1. *When the set is operation normally with 120VAC supply, confirm that the voltage of the protector terminal of H.V.R is 15.50 ±2.50 V dc.*



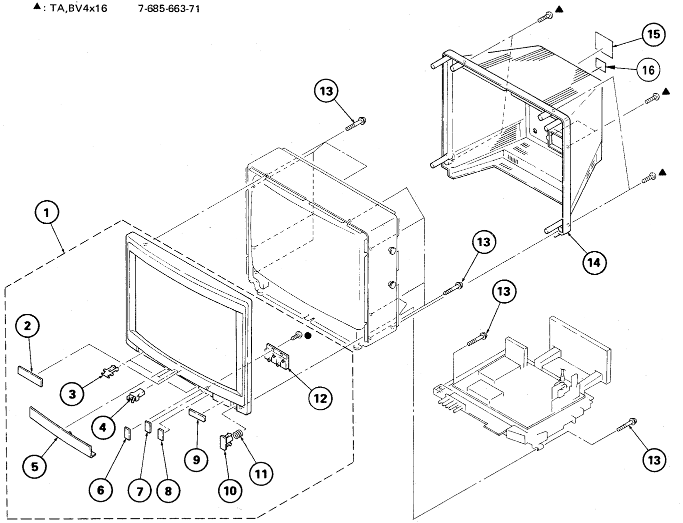
SECTION 3
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ★ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

3-1. BEZEL

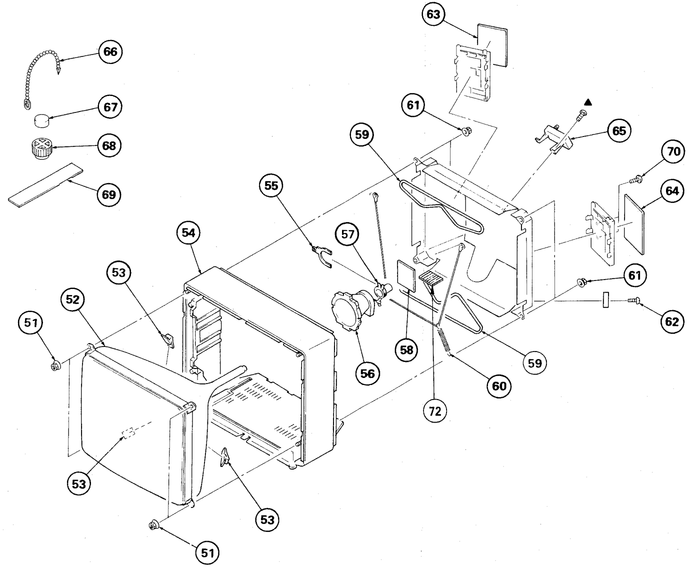
●: TA,BV3x12 7-685-648-19
▲: TA,BV4x16 7-685-663-71



No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
1	X-4382-104-1	BEZEL ASSY		9	4-382-128-01	WINDOW (B)	
2	*4-374-115-01	EMBLEM, SONY		10	4-382-106-01	BUTTON, POWER	
3	3-662-365-00	SHAFT (S), DOOR		11	*3-660-863-00	SPRING, COMPRESSION	
4	4-374-714-01	CATCH, PUSH		12	4-378-278-01	BUTTON (B), MULTI	
5	4-382-129-01	DOOR, CONTROL		13	4-319-520-00	SCREW, SPECIAL (+PW4X30)	
6	4-382-108-01	BUTTON, TV/VIDEO		14	X-4382-103-1	COVER ASSY, REAR	
7	4-382-107-01	BUTTON, UP/DOWN		15	*4-382-126-01	LABEL, MODEL NUMBER (J)	
8	4-382-107-11	BUTTON, UP/DOWN		16	4-010-023-05	LABEL, X-RAY	

3-2. CRT

▲: TA,BV4x16

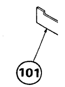


No.	Part No.	Description	Remark	No.	Part No.	Description	Remark
51	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL		62	⚠.1-205-899-11	RES, CEMENT WIREWOUND 3.9	
52	⚠.8-736-652-05	CRT (A64JKJ10X)		63	*A-1135-439-A	B BOARD, COMPLETE	
53	3-703-003-00	SPACER, DY		64	*A-1245-379-A	F BOARD, COMPLETE	
54	X-4382-102-1	CABINET ASSY		65	⚠.1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE	
55	1-452-277-12	MAGNET, BMC		66	4-308-870-00	CLIP, LEAD WIRE	
56	⚠.1-451-255-11	DEFLECTION YOKE (SY-164)		67	1-452-032-00	MAGNET, DISK; 10MM ø	
57	⚠.1-452-391-11	NECK ASSY, CRT (NA305)		68	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø	
58	*A-1330-737-A	C BOARD, COMPLETE		69	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
59	⚠.1-426-289-11	COIL, DEMAGNETIZATION		70	4-302-428-00	HEAD, WASHER, TAPPING SCREW	
60	4-303-774-03	SPRING		71	⚠.1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE	
61	4-306-034-00	FLANGE NUT, (B) 5MM		72	4-382-133-01	CUSHION (B)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

3-3.

●: T

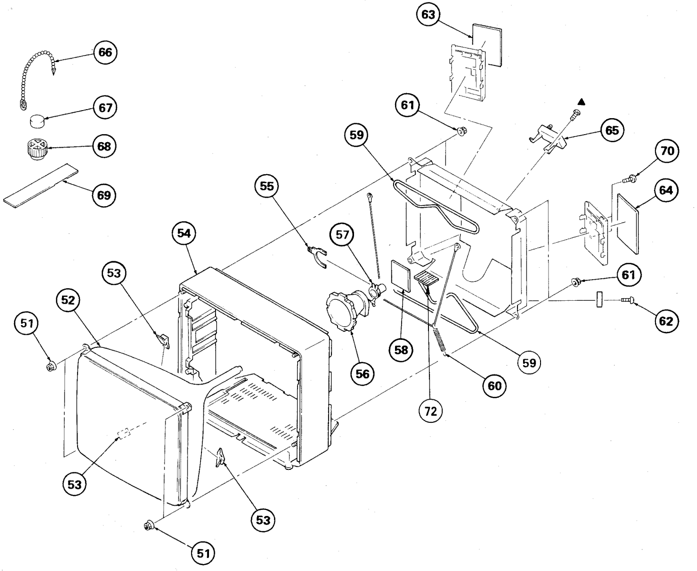


No.
101
102
103
104
105
106
107
108
109

T
b
c
R
n

3-2. CRT

▲: TA,BV4x16

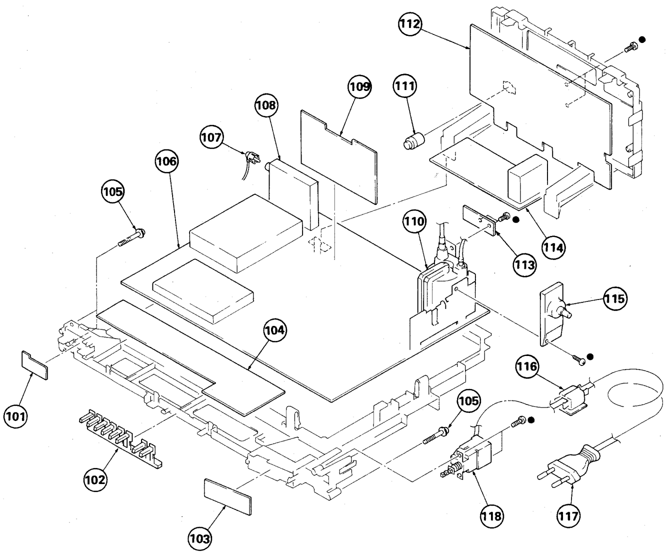


No.	Part No.	Description	Remark
51	X-4374-104-1	SCREW (B) ASSY, ORNAMENTAL	
52	⚠.8-736-652-05	CRT (A64JKJ10X)	
53	3-703-003-00	SPACER, DY	
54	X-4382-102-1	CABINET ASSY	
55	1-452-277-12	MAGNET, BMC	
56	⚠.1-451-255-11	DEFLECTION YOKE (SY-164)	
57	⚠.1-452-391-11	NECK ASSY, CRT (NA305)	
58	*A-1330-737-A	C BOARD, COMPLETE	
59	⚠.1-426-289-11	COIL, DEMAGNETIZATION	
60	4-303-774-03	SPRING	
61	4-306-034-00	FLANGE NUT, (B) 5MM	
62	⚠.1-205-899-11	RES, CEMENT WIREWOUND 3.9	
63	*A-1135-439-A	B BOARD, COMPLETE	
64	*A-1245-379-A	F BOARD, COMPLETE	
65	⚠.1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE	
66	4-308-870-00	CLIP, LEAD WIRE	
67	1-452-032-00	MAGNET, DISK; 10MM ø	
68	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø	
69	X-4308-815-0	PERMALLOY ASSY, CONVERGENCE	
70	4-302-428-00	HEAD, WASHER, TAPPING SCREW	
71	⚠.1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE	
72	4-382-133-01	CUSHION (B)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

3-3. CHASSIS

●: TA,BV3x12 7-685-648-19



No.	Part No.	Description	Remark
101	*1-619-600-11	K2 BOARD	
102	4-378-277-01	BUTTON (A), MULTI	
103	*1-619-602-11	H2 BOARD	
104	*1-619-601-11	H1 BOARD	
105	4-319-520-00	SCREW, SPECIAL (+PW4X30)	
106	*A-1296-266-A	A BOARD, COMPLETE	
107	*1-557-056-00	CABLE, P-P	
108	1-463-661-11	TUNER, ET (BT-886)	
109	*A-1340-933-A	D BOARD, COMPLETE	
110	⚠.1-439-332-52	TRANSFORMER ASSY, FLYBACK	
111	⚠.1-563-204-12	SOCKET, ANTENNA (PAL/SECAM)	
112	*A-1394-113-A	K1 BOARD, COMPLETE	
113	*1-620-095-11	DF BOARD	
114	*A-1381-057-A	Y BOARD, COMPLETE	
115	⚠.1-237-280-11	RESISTOR ASSY, HIGH-VOLTAGE	
116	⚠.4-022-115-01	HOLDER, AC CORD	
117	⚠.1-534-817-71	CORD, POWER	
118	⚠.1-554-966-12	SWITCH, PUSH (AC POWER)(1 KEY)	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 4
ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

When indicating parts by reference number, please include the board name.

- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
- MF : μF, PF : μμF

RESISTORS
- All resistors are in ohms
- F : nonflammable

COILS
- MMH : mH, UH : μH

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No.	Part No.	Description				Remark
	*A-1135-439-A	B BOARD, COMPLETE *****************				
		CONNECTOR				
B1	*1-566-063-11	PIN, CONNECTOR 11P				
B3	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P				
B5	*1-566-061-11	PIN, CONNECTOR 9P				
		CAPACITOR				
C301	1-124-445-00	ELECT	100MF	20%	16V	
C303	1-123-369-00	ELECT	4.7MF	20%	25V	
C304	1-124-907-00	ELECT	10MF	20%	50V	
C305	1-106-184-00	MYLAR	0.0033MF	10%	50V	
C308	1-124-904-00	ELECT	2.2MF	20%	50V	
C309	1-102-865-00	CERAMIC	8PF	0.5PF	50V	
C310	1-124-907-00	ELECT	10MF	20%	50V	
C311	1-108-841-91	MYLAR	0.022MF	10%	50V	
C312	1-108-841-91	MYLAR	0.022MF	10%	50V	
C313	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C316	1-136-169-00	FILM	0.22MF	5%	50V	
C317	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C320	1-124-445-00	ELECT	100MF	20%	16V	
C322	1-101-005-00	CERAMIC	0.022MF		50V	
C324	1-124-902-00	ELECT	0.47MF	20%	50V	
C327	1-102-525-00	CERAMIC	68PF	5%	50V	
C328	1-102-525-00	CERAMIC	68PF	5%	50V	
C329	1-102-525-00	CERAMIC	68PF	5%	50V	
C330	1-124-904-00	ELECT	2.2MF	20%	50V	
C331	1-124-903-00	ELECT	1MF	20%	50V	
C333	1-102-518-00	CERAMIC	33PF	5%	50V	
C334	1-124-904-00	ELECT	2.2MF	20%	50V	
C336	1-124-904-00	ELECT	2.2MF	20%	50V	
C337	1-102-110-00	CERAMIC	220PF	10%	50V	
C340	1-124-475-11	ELECT	470MF	20%	16V	
C341	1-124-903-00	ELECT	1MF	20%	50V	
C346	1-124-903-00	ELECT	1MF	20%	50V	
C347	1-102-110-00	CERAMIC	220PF	10%	50V	
C350	1-101-005-00	CERAMIC	0.022MF		50V	
C360	1-102-865-00	CERAMIC	8PF	0.5PF	50V	
C365	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C367	1-101-005-00	CERAMIC	0.022MF		50V	
C369	1-123-332-00	ELECT	47MF	20%	16V	
C370	1-101-005-00	CERAMIC	0.022MF		50V	
C381	1-101-004-00	CERAMIC	0.01MF		50V	
C384	1-102-822-00	CERAMIC	390PF	5%	50V	
C387	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C422	1-124-902-00	ELECT	0.47MF	20%	50V	
C441	1-124-902-00	ELECT	0.47MF	20%	50V	
C452	1-136-169-00	FILM	0.22MF	5%	50V	
C453	1-124-445-00	ELECT	100MF	20%	16V	
C472	1-108-837-00	MYLAR	0.01MF	10%	50V	
C490	1-123-332-00	ELECT	47MF	20%	16V	

Ref.No.	Part No.	Description	Remark
		FILTER	
CF351	1-409-344-00	CERAMIC TRAP 3.58MHZ	
CF361	1-409-332-00	CERAMIC TRAP (4.5MHZ)	
		TRIMMER	
CV358	1-141-181-11	CAP, TRIMMER	
CV443	1-141-181-11	CAP, TRIMMER	
		DIODE	
D305	8-719-911-19	DIODE 1SS119	
D307	8-719-911-19	DIODE 1SS119	
D328	8-719-911-19	DIODE 1SS119	
D341	8-719-911-19	DIODE 1SS119	
D351	8-719-911-19	DIODE 1SS119	
D352	8-719-911-19	DIODE 1SS119	
D353	8-719-911-19	DIODE 1SS119	
D398	8-719-911-19	DIODE 1SS119	
		DELAY LINE	
DL301	1-415-122-31	DELAY LINE, 1H (PAL)	
		IC	
IC300	8-752-030-86	IC CXA1001AP	
IC450	8-759-135-80	IC UPC358C	
		COIL	
L327	1-408-603-00	MICRO INDUCTOR 10UH	
L328	1-408-603-00	MICRO INDUCTOR 10UH	
L329	1-408-603-00	MICRO INDUCTOR 10UH	
L333	1-408-416-00	MICRO INDUCTOR 39UH	
L337	1-408-244-00	MICRO INDUCTOR 18MMH	
L354	1-408-607-00	MICRO INDUCTOR 22UH	
L360	1-408-619-00	MICRO INDUCTOR 220UH	
L378	1-408-415-00	MICRO INDUCTOR 33UH	
L473	1-408-602-21	MICRO INDUCTOR 8.2UH	
		TRANSISTOR	
Q351	8-729-178-54	TRANSISTOR 2SC2785	
Q352	8-729-178-54	TRANSISTOR 2SC2785	
Q353	8-729-178-54	TRANSISTOR 2SC2785	
Q354	8-729-900-36	TRANSISTOR DTC124ES	
Q364	8-729-178-54	TRANSISTOR 2SC2785	
Q365	8-729-178-54	TRANSISTOR 2SC2785	
Q366	8-729-178-54	TRANSISTOR 2SC2785	
Q369	8-729-178-54	TRANSISTOR 2SC2785	
Q380	8-729-178-54	TRANSISTOR 2SC2785	
Q381	8-729-178-54	TRANSISTOR 2SC2785	
Q382	8-729-178-54	TRANSISTOR 2SC2785	
Q387	8-729-117-54	TRANSISTOR 2SA1175	
Q388	8-729-900-36	TRANSISTOR DTC124ES	
Q450	8-729-117-54	TRANSISTOR 2SA1175	
Q470	8-729-178-54	TRANSISTOR 2SC2785	

B

RESISTOR

Ref.No.	Part No.	Description				Remark
R301	1-247-823-00	CARBON	470	5%	1/6W	
R303	1-249-441-11	CARBON	100K	5%	1/6W	
R304	1-247-869-00	CARBON	39K	5%	1/6W	
R305	1-247-883-00	CARBON	150K	5%	1/6W	
R306	1-249-435-11	CARBON	33K	5%	1/6W	
R308	1-249-435-11	CARBON	33K	5%	1/6W	
R311	1-247-875-00	CARBON	68K	5%	1/6W	
R312	1-247-875-00	CARBON	68K	5%	1/6W	
R313	1-247-839-00	CARBON	2.2K	5%	1/6W	
R314	1-249-435-11	CARBON	33K	5%	1/6W	
R315	1-249-433-11	CARBON	22K	5%	1/6W	
R316	1-249-429-11	CARBON	10K	5%	1/6W	
R317	1-247-839-00	CARBON	2.2K	5%	1/6W	
R318	1-247-815-00	CARBON	220	5%	1/6W	
R319	1-249-433-11	CARBON	22K	5%	1/6W	
R321	1-247-713-11	CARBON	1K	5%	1/4W	
R323	1-249-441-11	CARBON	100K	5%	1/6W	
R324	1-249-441-11	CARBON	100K	5%	1/6W	
R326	1-249-441-11	CARBON	100K	5%	1/6W	
R327	1-249-423-11	CARBON	3.3K	5%	1/6W	
R328	1-249-423-11	CARBON	3.3K	5%	1/6W	
R329	1-249-423-11	CARBON	3.3K	5%	1/6W	
R330	1-247-883-00	CARBON	150K	5%	1/6W	
R331	1-247-903-00	CARBON	1M	5%	1/6W	
R332	1-247-889-00	CARBON	270K	5%	1/6W	
R333	1-249-414-11	CARBON	560	5%	1/6W	
R335	1-249-419-11	CARBON	1.5K	5%	1/6W	
R336	1-247-815-00	CARBON	220	5%	1/6W	
R337	1-247-851-00	CARBON	6.8K	5%	1/6W	
R338	1-249-423-11	CARBON	3.3K	5%	1/6W	
R339	1-247-839-00	CARBON	2.2K	5%	1/6W	
R340	1-247-851-00	CARBON	6.8K	5%	1/6W	
R341	1-249-422-11	CARBON	2.7K	5%	1/6W	
R342	1-247-853-00	CARBON	8.2K	5%	1/6W	
R343	1-249-433-11	CARBON	22K	5%	1/6W	
R344	1-249-440-11	CARBON	82K	5%	1/6W	
R345	1-249-437-11	CARBON	47K	5%	1/6W	
R346	1-247-849-00	CARBON	5.6K	5%	1/6W	
R347	1-247-819-00	CARBON	330	5%	1/6W	
R348	1-247-819-00	CARBON	330	5%	1/6W	
R349	1-247-819-00	CARBON	330	5%	1/6W	
R350	1-249-425-11	CARBON	4.7K	5%	1/6W	
R351	1-247-839-00	CARBON	2.2K	5%	1/6W	
R352	1-249-417-11	CARBON	1K	5%	1/6W	
R353	1-247-819-00	CARBON	330	5%	1/6W	
R354	1-247-819-00	CARBON	330	5%	1/6W	
R355	1-249-429-11	CARBON	10K	5%	1/6W	
R356	1-249-433-11	CARBON	22K	5%	1/6W	
R357	1-249-433-11	CARBON	22K	5%	1/6W	
R358	1-249-433-11	CARBON	22K	5%	1/6W	
R359	1-249-441-11	CARBON	100K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R360	1-247-845-00	CARBON	3.9K	5%	1/6W	
R361	1-247-845-00	CARBON	3.9K	5%	1/6W	
R362	1-249-433-11	CARBON	22K	5%	1/6W	
R363	1-249-417-11	CARBON	1K	5%	1/6W	
R364	1-249-423-11	CARBON	3.3K	5%	1/6W	
R365	1-249-437-11	CARBON	47K	5%	1/6W	
R366	1-247-887-00	CARBON	220K	5%	1/6W	
R367	1-249-433-11	CARBON	22K	5%	1/6W	
R368	1-249-433-11	CARBON	22K	5%	1/6W	
R369	1-247-891-00	CARBON	330K	5%	1/6W	
R371	1-249-433-11	CARBON	22K	5%	1/6W	
R372	1-249-433-11	CARBON	22K	5%	1/6W	
R374	1-249-435-11	CARBON	33K	5%	1/6W	
R375	1-249-435-11	CARBON	33K	5%	1/6W	
R376	1-249-423-11	CARBON	3.3K	5%	1/6W	
R378	1-249-414-11	CARBON	560	5%	1/6W	
R379	1-247-795-00	CARBON	33	5%	1/6W	
R380	1-249-417-11	CARBON	1K	5%	1/6W	
R381	1-249-433-11	CARBON	22K	5%	1/6W	
R382	1-249-423-11	CARBON	3.3K	5%	1/6W	
R383	1-247-829-00	CARBON	820	5%	1/6W	
R384	1-247-809-00	CARBON	120	5%	1/6W	
R385	1-249-417-11	CARBON	1K	5%	1/6W	
R386	1-247-815-00	CARBON	220	5%	1/6W	
R387	1-247-851-00	CARBON	6.8K	5%	1/6W	
R388	1-247-891-00	CARBON	330K	5%	1/6W	
R391	1-249-435-11	CARBON	33K	5%	1/6W	
R392	1-249-417-11	CARBON	1K	5%	1/6W	
R398	1-249-441-11	CARBON	100K	5%	1/6W	
R404	1-249-435-11	CARBON	33K	5%	1/6W	
R450	1-249-425-11	CARBON	4.7K	5%	1/6W	
R451	1-249-405-11	CARBON	100	5%	1/6W	
R452	1-249-414-11	CARBON	560	5%	1/6W	
R453	1-249-414-11	CARBON	560	5%	1/6W	
R454	1-249-429-11	CARBON	10K	5%	1/6W	
R455	1-247-869-00	CARBON	39K	5%	1/6W	
R456	1-247-887-00	CARBON	220K	5%	1/6W	
R457	1-247-869-00	CARBON	39K	5%	1/6W	
R460	1-249-435-11	CARBON	33K	5%	1/6W	
R471	1-247-851-00	CARBON	6.8K	5%	1/6W	
R472	1-249-417-11	CARBON	1K	5%	1/6W	
R473	1-247-821-00	CARBON	390	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV301	1-230-624-51	RES, ADJ, CARBON 220	
RV302	1-230-631-11	RES, ADJ, CARBON 22K	
RV303	1-230-630-11	RES, ADJ, CARBON 10K	

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T301	1-404-524-11	DAT	

CRYSTAL

Ref.No.	Part No.	Description	Remark
X358	1-527-396-00	CRYSTAL, OSC	
X443	1-527-345-00	CRYSTAL, OSC	

MODULE

Ref.No.	Part No.	Description	Remark
YCM301	1-235-833-11	YC MODULE	

****

*A-1245-379-A F BOARD, COMPLETE
****

CAPACITOR

Ref.No.	Part No.	Description				Remark
C600 ⚠	1-136-360-51	FILM	0.22MF	20%	250V	
C601 ⚠	1-136-360-51	FILM	0.22MF	20%	250V	
C602 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C603 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C604 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C605 ⚠	1-161-964-61	CERAMIC	0.0047MF		250V	
C606	1-125-287-00	ELECT(BLOCK)	430MF		400V	
C613	1-123-946-00	ELECT	4.7MF	20%	250V	
C614	1-136-064-00	FILM	0.002MF	3%	2KV	
C615	1-129-765-00	FILM	0.047MF	10%	200V	
C616	1-124-798-11	ELECT	1MF	20%	160V	
C617	1-124-042-91	ELECT	0.47MF	20%	50V	
C618	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C619	1-124-896-00	ELECT	33MF	20%	16V	
C620	1-124-443-00	ELECT	100MF	20%	10V	
C621	1-136-145-00	FILM	0.0022MF	5%	50V	
C622	1-104-067-00	POLYSTYRENE	390PF	5%	50V	
C623	1-124-125-91	ELECT	22MF	20%	25V	
C624	1-162-318-11	CERAMIC	0.001MF	10%	500V	
C625	1-123-607-00	ELECT	0.1MF	20%	50V	
C626	1-162-115-00	CERAMIC	330PF	10%	2KV	
C651	1-125-295-00	ELECT(BLOCK)	560MF	20%	200V	
C652	1-162-115-00	CERAMIC	330PF	10%	2KV	
C654	1-102-030-00	CERAMIC	330PF	10%	500V	
C656	1-102-030-00	CERAMIC	330PF	10%	500V	
C657	1-162-115-00	CERAMIC	330PF	10%	2KV	
C658	1-124-038-00	ELECT	1MF	20%	50V	
C659	1-108-833-00	MYLAR	0.0047MF	10%	50V	
C660 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C661 ⚠	1-162-578-51	CERAMIC	0.0047MF	20%	400V	
C662	1-102-030-00	CERAMIC	330PF	10%	500V	
C671	1-124-556-11	ELECT	2200MF	20%	16V	
C673	1-124-789-11	ELECT	2200MF	20%	35V	
C674	1-124-607-11	ELECT	2200MF	20%	50V	
C676	1-102-978-00	CERAMIC	220PF	5%	50V	
C677	1-108-691-81	MYLAR	0.0082MF	10%	200V	
C680	1-102-030-00	CERAMIC	330PF	10%	500V	

DIODE

Ref.No.	Part No.	Description	Remark
D601 ⚠	8-719-503-06	DIODE S3WB60Z	
D611	8-719-118-34	DIODE RD110E-B	
D612	8-719-924-06	DIODE ERC24-06S	
D613	8-719-924-06	DIODE ERC24-06S	
D614	8-719-924-06	DIODE ERC24-06S	
D615	8-719-109-97	DIODE RD6.8ES-B2	
D616	8-719-924-06	DIODE ERC24-06S	
D617	8-719-911-19	DIODE 1SS119	
D619	8-719-924-06	DIODE ERC24-06S	
D622	8-719-110-46	DIODE RD16ES-B3	
D623	8-719-102-36	DIODE RD36E-L1	
D624	8-719-102-36	DIODE RD36E-L1	
D651	8-719-300-33	DIODE RU-3AM	
D652	8-719-924-06	DIODE ERC24-06S	
D653	8-719-933-13	DIODE ERC35-02	
D654	8-719-911-19	DIODE 1SS119	
D655	8-719-110-31	DIODE RD12ES-B2	
D657	8-719-109-88	DIODE RD5.6ES-B1	
D658	8-719-911-19	DIODE 1SS119	
D659	8-719-924-06	DIODE ERC24-06S	

CONNECTOR

Ref.No.	Part No.	Description	Remark
F1	*1-506-349-21	3P PLUG (L)	
F2	*1-508-765-00	3P PLUG (M)	
F3	*1-508-786-00	2P PLUG (M)	
F4	*1-508-767-00	5P PLUG	
F5	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
F6	*1-506-371-00	2P PLUG (L)	

FUSE

Ref.No.	Part No.	Description	Remark
F601 ⚠	1-532-299-11	FUSE, TIME-LAG 5A/250V	
	1-533-189-11	HOLDER, FUSE;F601	

IC

Ref.No.	Part No.	Description	Remark
IC601	8-759-100-75	IC UPC1394C	
IC602	8-719-939-00	PC111S	
IC651	8-759-927-49	IC IR9431	

NEON LAMP

Ref.No.	Part No.	Description	Remark
NL601	1-519-402-11	LAMP, NEON	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q611	8-729-168-82	TRANSISTOR 2SC2688	
Q612	8-729-168-82	TRANSISTOR 2SC2688	
Q613	8-729-802-14	TRANSISTOR 2SC3460	
	4-302-428-00	HEAD, WASHER, TAPPING SCREW; Q613	
	4-363-414-00	SPACER, MICA; Q613	
Q614	8-729-168-82	TRANSISTOR 2SC2688	
Q615	8-729-178-54	TRANSISTOR 2SC2785	
Q617	8-729-178-54	TRANSISTOR 2SC2785	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

RESISTOR

Ref.No.	Part No.	Description				Remark
R611	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R612	1-216-444-11	METAL OXIDE	82K	5%	1W	F
R613	1-249-496-11	CARBON	100K	5%	1/2W	F
R614	1-215-922-11	METAL OXIDE	6.8K	5%	3W	F
R615	1-246-529-00	CARBON	220K	5%	1/4W	
R616	1-247-706-11	CARBON	330	5%	1/4W	
R617	1-247-719-11	CARBON	3.3K	5%	1/4W	
R618	1-247-789-00	CARBON	18	5%	1/6W	
R619	1-217-201-11	WIREWOUND	1.2	10%	2W	F
R620	1-217-190-00	WIREWOUND	0.15	10%	2W	F
R621	1-249-417-11	CARBON	1K	5%	1/6W	
R622	1-249-434-11	CARBON	27K	5%	1/6W	
R623	1-215-457-00	METAL	33K	1%	1/6W	
R624	1-249-429-11	CARBON	10K	5%	1/6W	
R625	1-247-726-11	CARBON	33K	5%	1/4W	
R626	1-247-819-00	CARBON	330	5%	1/6W	
R627	1-247-873-00	CARBON	56K	5%	1/6W	
R628	1-215-469-00	METAL	100K	1%	1/6W	
R629	1-249-429-11	CARBON	10K	5%	1/6W	
R630	1-215-459-00	METAL	39K	1%	1/6W	
R631	1-247-845-00	CARBON	3.9K	5%	1/6W	
R632	1-247-753-11	CARBON	1.2K	5%	1/2W	F
R633	1-249-441-11	CARBON	100K	5%	1/6W	
R634	1-249-417-11	CARBON	1K	5%	1/6W	
R635	1-215-914-11	METAL OXIDE	330	5%	3W	F
R636	1-215-914-11	METAL OXIDE	330	5%	3W	F
R638	1-202-719-00	SOLID	1M	10%	1/2W	
R639	1-202-720-00	SOLID	1.2M	10%	1/2W	
R640	1-247-873-00	CARBON	56K	5%	1/6W	
R646	1-247-721-11	CARBON	4.7K	5%	1/4W	
R652	1-215-900-11	METAL OXIDE	22K	5%	2W	F
R653	1-249-417-11	CARBON	1K	5%	1/6W	
R654	1-246-523-00	CARBON	120K	5%	1/4W	
R655	1-214-777-00	METAL	100K	1%	1/4W	
R656	1-247-895-00	CARBON	470K	5%	1/6W	
R657	1-247-881-00	CARBON	120K	5%	1/6W	
R658 ⚠.	1-247-289-11	CARBON	8.2M	5%	1W	
R659 ⚠.	1-205-758-11	CEMENTED	100	10%	10W	F
R660 ⚠.	1-205-758-11	CEMENTED	100	10%	10W	F
R663	1-244-905-00	CARBON	22K	5%	1/2W	
R665	1-215-425-00	METAL	1.5K	1%	1/6W	
R668	1-249-470-11	CARBON	0.47	5%	1/2W	F
R669	1-249-443-11	CARBON	0.47	5%	1/4W	F
R671	1-215-415-00	METAL	560	1%	1/6W	
R680	1-215-914-11	METAL OXIDE	330	5%	3W	F
R681	1-215-914-11	METAL OXIDE	330	5%	3W	F
R682	1-216-486-00	METAL OXIDE	8.2K	5%	3W	F
⊠R683 ⚠.		METAL			1/6W	
R688	1-247-851-00	CARBON	6.8K	5%	1/6W	
R690	1-246-525-00	CARBON	150K	5%	1/4W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description	Remark
RV601	1-230-624-51	RES, ADJ, CARBON 220	

SPARK GAP

Ref.No.	Part No.	Description	Remark
SG601 ⚠.	1-519-063-21	DISCHARGING GAP	

TRANSFORMER

Ref.No.	Part No.	Description	Remark
T601 ⚠.	1-421-662-11	LFT	
T602	1-437-079-00	TRANSFORMER, HPRIZONTAL DRIVE	
T603 ⚠.	1-448-678-11	S.R.T	

THERMISTOR

Ref.No.	Part No.	Description	Remark
TH611	1-800-954-00	THERMISTOR S-3K	
THP601 ⚠	1-806-387-11	THERMISTOR (POSITIVE)	
THP602 ⚠	1-806-387-11	THERMISTOR (POSITIVE)	
THP611	1-807-598-11	THERMISTOR (POSITIVE)	

****

Ref.No.	Part No.	Description	Remark
	*A-1296-266-A	A BOARD, COMPLETE *****************	
	*1-508-766-00	4P PLUG (M)	

CONNECTOR

Ref.No.	Part No.	Description	Remark
A0	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P	
A1	*1-566-063-11	PIN, CONNECTOR 11P	
A2	*1-508-768-00	6P PLUG	
A3	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A4	*1-508-767-00	5P PLUG	
A5	*1-566-061-11	PIN, CONNECTOR 9P	
A6	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P	
A7	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P	
A8	*1-566-061-11	PIN, CONNECTOR 9P	
A9	*1-564-441-11	PLUG, CONNECTOR (2.5MM) 5P	
A10	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P	
A11	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A14	*1-508-765-00	3P PLUG (M)	
A15	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P	
A16	*1-564-353-00	PLUG, CONNECTOR (2.5MM) 2P	
A17	*1-508-784-00	1P PLUG	

CAPACITOR

Ref.No.	Part No.	Description				Remark
C001	1-102-106-00	CERAMIC	100PF	10%	50V	
C002	1-136-165-00	FILM	0.1MF	5%	50V	
C003	1-124-907-00	ELECT	10MF	20%	50V	
C004	1-123-332-00	ELECT	47MF	20%	16V	
C005	1-124-927-11	ELECT	4.7MF	20%	50V	
C006	1-101-004-00	CERAMIC	0.01MF		50V	
C007	1-124-927-11	ELECT	4.7MF	20%	50V	
C008	1-124-927-11	ELECT	4.7MF	20%	50V	
C011	1-119-160-00	ELECT	470MF		10V	
C014	1-124-907-00	ELECT	10MF	20%	50V	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Ref.No.	Part No.	Description			Remark
C017	1-123-820-00	ELECT	33MF	20%	16V
C019	1-102-110-00	CERAMIC	220PF	10%	50V
C021	1-101-003-00	CERAMIC	0.0047MF		50V
C025	1-102-074-00	CERAMIC	0.001MF	10%	50V
C031	1-102-110-00	CERAMIC	220PF	10%	50V
C032	1-102-074-00	CERAMIC	0.001MF	10%	50V
C033	1-102-074-00	CERAMIC	0.001MF	10%	50V
C035	1-101-003-00	CERAMIC	0.0047MF		50V
C040	1-102-074-00	CERAMIC	0.001MF	10%	50V
C052	1-102-114-00	CERAMIC	470PF	10%	50V
C053	1-102-112-00	CERAMIC	330PF	10%	50V
C054	1-124-927-11	ELECT	4.7MF	20%	50V
C055	1-102-508-00	CERAMIC	10PF	0.5PF	50V
C056	1-102-508-00	CERAMIC	10PF	0.5PF	50V
C057	1-102-523-00	CERAMIC	56PF	5%	50V
C060	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C081	1-123-321-00	ELECT	220MF	20%	16V
C082	1-124-896-00	ELECT	33MF	20%	16V
C083	1-124-927-11	ELECT	4.7MF	20%	50V
C084	1-124-903-00	ELECT	1MF	20%	50V
C201	1-102-508-00	CERAMIC	10PF	0.5PF	50V
C202	1-102-510-00	CERAMIC	12PF	5%	50V
C203	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C205	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C206	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C207	1-102-852-00	CERAMIC	47PF	5%	50V
C208	1-102-510-00	CERAMIC	12PF	5%	50V
C209	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C210	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C211	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C213	1-102-516-00	CERAMIC	27PF	5%	50V
C214	1-102-518-00	CERAMIC	33PF	5%	50V
C215	1-102-520-00	CERAMIC	39PF	5%	50V
C216	1-102-945-00	CERAMIC	8PF	1PF	50V
C217	1-102-944-00	CERAMIC	7PF	1PF	50V
C219	1-102-518-00	CERAMIC	33PF	5%	50V
C220	1-102-518-00	CERAMIC	33PF	5%	50V
C227	1-161-051-00	CERAMIC	0.01MF	10%	50V
C229	1-161-059-00	CERAMIC	0.047MF	10%	25V
C230	1-124-907-00	ELECT	10MF	20%	50V
C231	1-124-902-00	ELECT	0.47MF	20%	50V
C232	1-161-051-00	CERAMIC	0.01MF	10%	50V
C233	1-102-525-00	CERAMIC	68PF	5%	50V
C234	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C235	1-124-896-00	ELECT	33MF	20%	16V
C236	1-161-059-00	CERAMIC	0.047MF	10%	25V
C237	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C238	1-123-321-00	ELECT	220MF	20%	16V
C241	1-124-445-00	ELECT	100MF	20%	16V
C251	1-102-526-00	CERAMIC	75PF	5%	50V
C252	1-102-852-00	CERAMIC	47PF	5%	50V
C253	1-102-516-00	CERAMIC	27PF	5%	50V
C261	1-123-332-00	ELECT	47MF	20%	16V
C262	1-102-516-00	CERAMIC	27PF	5%	50V
C281	1-124-119-00	ELECT	330MF	20%	16V
C282	1-101-005-00	CERAMIC	0.022MF		50V
C287	1-124-904-00	ELECT	2.2MF	20%	50V
C291	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C292	1-123-321-00	ELECT	220MF	20%	16V
C293	1-124-907-00	ELECT	10MF	20%	50V
C294	1-124-907-00	ELECT	10MF	20%	50V
C295	1-136-165-00	FILM	0.1MF	5%	50V
C296	1-136-163-00	FILM	0.068MF	5%	50V
C297	1-102-963-00	CERAMIC	33PF	5%	50V
C298	1-124-896-00	ELECT	33MF	20%	16V
C299	1-124-907-00	ELECT	10MF	20%	50V
C501	1-108-634-81	MYLAR	0.047MF	10%	100V
C502	1-124-903-00	ELECT	1MF	20%	50V
C503	1-106-176-00	MYLAR	0.0015MF	10%	50V
C504	1-136-173-00	FILM	0.47MF	5%	50V
C505	1-108-633-81	MYLAR	0.039MF	10%	100V
C506	1-124-903-00	ELECT	1MF	20%	50V
C507	1-108-837-00	MYLAR	0.01MF	10%	50V
C508	1-124-903-00	ELECT	1MF	20%	50V
C509	1-124-445-00	ELECT	100MF	20%	16V
C510	1-124-902-00	ELECT	0.47MF	20%	50V
C512	1-124-904-00	ELECT	2.2MF	20%	50V
C513	1-108-634-81	MYLAR	0.047MF	10%	100V
C514	1-101-004-00	CERAMIC	0.01MF		50V
C515	1-124-555-00	ELECT	1000MF	20%	16V
C516	1-108-841-91	MYLAR	0.022MF	10%	50V
C517	1-101-888-00	CERAMIC	68PF	5%	50V
C518	1-108-837-00	MYLAR	0.01MF	10%	50V
C519	1-123-321-00	ELECT	220MF	20%	16V
C520	1-124-903-00	ELECT	1MF	20%	50V
C521	1-124-903-00	ELECT	1MF	20%	50V
C522	1-129-794-00	FILM	0.0033MF	2%	100V
C523	1-106-180-00	MYLAR	0.0022MF	5%	50V
C524	1-108-841-91	MYLAR	0.022MF	10%	50V
C525	1-124-907-00	ELECT	10MF	20%	50V
C526	1-108-614-91	MYLAR	0.001MF	10%	100V
C527	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C530	1-124-445-00	ELECT	100MF	20%	16V
C531	1-124-907-00	ELECT	10MF	20%	50V
C532	1-102-108-00	CERAMIC	150PF	10%	50V
C533	1-102-820-00	CERAMIC	330PF	5%	50V
C551	1-108-627-91	MYLAR	0.012MF	10%	100V
C552	1-102-244-00	CERAMIC	220PF	10%	500V
C553	1-123-875-91	ELECT	10MF	20%	50V
C554	1-102-030-00	CERAMIC	330PF	10%	500V
C555	1-102-038-00	CERAMIC	0.001MF		500V
C556	1-124-801-11	ELECT	4.7MF	20%	160V
C557	1-108-431-00	MYLAR	0.068MF	10%	200V
C558	1-124-912-11	ELECT	330MF	20%	50V
C559	1-129-742-00	FILM	0.018MF	10%	400V

Ref.No.	Part No.	Description			Remark
C560	1-124-913-11	ELECT	470MF	20%	50V
C581	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C582	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C584	1-101-880-00	CERAMIC	47PF	5%	50V
C585	1-123-332-00	ELECT	47MF	20%	16V
C801	1-102-114-00	CERAMIC	470PF	10%	50V
C802	1-124-002-11	ELECT	1MF	20%	50V
C803	1-124-902-00	ELECT	0.47MF	20%	50V
C804	1-102-114-00	CERAMIC	470PF	10%	50V
C805	1-102-030-00	CERAMIC	330PF	10%	500V
C806	1-108-614-91	MYLAR	0.001MF	10%	100V
C807	1-106-385-00	MYLAR	0.056MF	10%	200V
C808	1-123-024-00	ELECT	33MF		160V
C809	1-124-119-00	ELECT	330MF	20%	16V
C810	1-136-117-00	FILM	2MF	5%	200V
C811 ⚠	1-162-116-51	CERAMIC	680PF	10%	2KV
C812 ⚠	1-136-080-11	FILM	0.011MF	3%	2KV
C813 ⚠	1-161-754-11	CERAMIC	0.001MF	10%	3KV
C814	1-108-632-81	MYLAR	0.033MF	10%	100V
C815	1-124-905-11	ELECT	3.3MF	20%	50V
C816	1-102-963-00	CERAMIC	33PF	5%	50V
C817 ⚠	1-136-334-51	FILM	0.033MF	5%	630V
C818	1-130-797-11	FILM	0.68MF	10%	250V
C819	1-108-692-81	MYLAR	0.01MF	10%	200V
C820	1-136-053-00	FILM	1.2MF	5%	200V
C821	1-102-112-00	CERAMIC	330PF	10%	50V
C822	1-162-116-00	CERAMIC	680PF	10%	2KV
C823	1-124-445-00	ELECT	100MF	20%	16V
C824	1-102-228-00	CERAMIC	470PF	10%	500V
C825	1-124-903-00	ELECT	1MF	20%	50V
C830	1-162-116-00	CERAMIC	680PF	10%	2KV
C831	1-131-351-00	TANTALUM	4.7MF	10%	35V
C832	1-124-902-00	ELECT	0.47MF	20%	50V
C833	1-124-892-11	ELECT	47MF	20%	10V
C834	1-124-907-00	ELECT	10MF	20%	50V
C835	1-124-908-11	ELECT	22MF	20%	50V
C836	1-124-907-00	ELECT	10MF	20%	50V
C837	1-124-902-00	ELECT	0.47MF	20%	50V
C851	1-102-038-00	CERAMIC	0.001MF		500V
C852	1-123-948-00	ELECT	22MF	20%	250V
C853	1-162-114-00	CERAMIC	0.0047MF		2KV
C856	1-108-634-81	MYLAR	0.047MF	10%	100V
C857	1-108-634-81	MYLAR	0.047MF	10%	100V
C858	1-108-634-81	MYLAR	0.047MF	10%	100V
C859	1-108-425-00	MYLAR	0.022MF	10%	200V
C860	1-102-038-00	CERAMIC	0.001MF		500V
C861	1-124-445-00	ELECT	100MF	20%	16V
C862	1-124-445-00	ELECT	100MF	20%	16V
C864	1-124-927-11	ELECT	4.7MF	20%	50V
C866	1-136-080-00	FILM	0.011MF	3%	2KV
C877	1-124-907-00	ELECT	10MF	20%	50V
C891	1-124-445-00	ELECT	100MF	20%	16V
C892	1-123-321-00	ELECT	220MF	20%	16V

Ref.No.	Part No.	Description			Remark
C893	1-123-321-00	ELECT	220MF	20%	16V

FILTER

CF241	1-527-943-00	FILTER, CERAMIC
CF242	1-409-332-00	CERAMIC TRAP
CF243	1-404-469-00	DISCRIMINATOR, CERAMIC 4.5MHZ
CF251	1-567-099-00	FILTER, CERAMIC
CF252	1-404-134-00	TRAP, CERAMIC (5.5MHZ)
CF253	1-404-473-00	DISCRIMINATOR, CERAMIC
CF261	1-567-100-00	FILTER, CERAMIC
CF262	1-409-333-00	TRAP, CERAMIC (6.0MHZ)
CF263	1-404-490-00	DISCRIMINATOR, CERAMIC(6.0MHZ)

DIODE

D003	8-719-911-19	DIODE 1SS119
D006	8-719-911-19	DIODE 1SS119
D007	8-719-911-19	DIODE 1SS119
D008	8-719-911-19	DIODE 1SS119
D009	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119
D011	8-719-102-26	DIODE RD30E-L4
D012	8-719-911-19	DIODE 1SS119
D013	8-719-911-19	DIODE 1SS119
D016	8-719-110-02	DIODE RD7.5ES-B1
D020	8-719-911-19	DIODE 1SS119
D024	8-719-911-19	DIODE 1SS119
D025	8-719-109-71	DIODE RD3.9ES-B1
D027	8-719-911-19	DIODE 1SS119
D028	8-719-911-19	DIODE 1SS119
D029	8-719-911-19	DIODE 1SS119
D031	8-719-911-19	DIODE 1SS119
D032	8-719-911-19	DIODE 1SS119
D033	8-719-911-19	DIODE 1SS119
D034	8-719-911-19	DIODE 1SS119
D052	8-719-911-19	DIODE 1SS119
D053	8-719-000-12	DIODE MC931
D054	8-719-000-12	DIODE MC931
D083	8-719-911-19	DIODE 1SS119
D084	8-719-911-19	DIODE 1SS119
D085	8-719-911-19	DIODE 1SS119
D086	8-719-911-19	DIODE 1SS119
D087	8-719-109-90	DIODE RD5.6ES-B3
D088	8-719-109-86	DIODE RD5.1ES-B3
D089	8-719-911-19	DIODE 1SS119
D203	8-719-911-19	DIODE 1SS119
D204	8-719-911-19	DIODE 1SS119
D205	8-719-911-19	DIODE 1SS119
D206	8-719-911-19	DIODE 1SS119
D210	8-719-911-19	DIODE 1SS119
D212	8-719-911-19	DIODE 1SS119
D241	8-719-109-81	DIODE RD4.7ES-B2
D251	8-719-109-85	DIODE RD5.1ES-B2
D261	8-719-109-85	DIODE RD5.1ES-B2

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
D281	8-719-110-17	DIODE RD10ES-B2	
D501	8-719-911-19	DIODE 1SS119	
D502	8-719-911-19	DIODE 1SS119	
D503	8-719-911-19	DIODE 1SS119	
D551	8-719-911-19	DIODE 1SS119	
D552	8-719-924-06	DIODE ERC24-06S	
D553	8-719-924-06	DIODE ERC24-06S	
D554	8-719-924-06	DIODE ERC24-06S	
D581	8-719-911-19	DIODE 1SS119	
D801	8-719-305-15	DIODE GH3F	
D802	8-719-900-26	DIODE ERD29-08J	
D803	8-719-305-15	DIODE GH3F	
D811	8-719-911-19	DIODE 1SS119	
D831	8-719-190-00	DIODE RD24E-BZ7	
D832	8-719-100-35	DIODE RD5.6E-B2	
D851	8-719-924-06	DIODE ERC24-06S	
D852	8-719-300-65	DIODE ES1F	
D854	8-719-924-06	DIODE ERC24-06S	
D855	8-719-924-06	DIODE ERC24-06S	
D856	8-719-924-06	DIODE ERC24-06S	
D858	8-719-911-55	DIODE U05G	
D891	8-719-110-36	DIODE RD13ES-B2	
D892	8-719-911-19	DIODE 1SS119	

IC

Ref.No.	Part No.	Description	Remark
IC001	8-759-604-26	IC M50436-518SP	
	*4-367-523-00	CASE (MAIN), SHIELD; IC001	
	*4-367-524-00	LID, UPPER, SHIELD CASE; IC001	
IC002	8-759-603-41	IC M58655P	
IC003	8-759-157-40	IC UPC574J	
IC004	8-759-340-52	IC HD14052BP	
IC081	8-759-105-33	IC UPC78L05J	
IC201	8-752-001-51	IC CX20015A	
	*4-376-533-01	CASE (MAIN), SHIELD; IC201	
	*4-376-534-01	CASE (UPPER), SHIELD; IC201	
	*4-376-535-01	CASE (BOTTOM), SHIELD; IC201	
IC202	8-759-340-52	IC HD14052BP	
IC501	8-759-100-60	IC UPC1377C	
IC581	8-759-909-70	IC CX23025	

COIL

Ref.No.	Part No.	Description	Remark
L001	1-408-603-00	MICRO INDUCTOR 10UH	
L051	1-408-608-41	MICRO INDUCTOR 27UH	
L052	1-408-595-00	MICRO INDUCTOR 2.2UH	
L201	1-408-412-00	MICRO INDUCTOR 18UH	
L202	1-408-397-00	MICRO INDUCTOR 1UH	
L203	1-408-421-00	MICRO INDUCTOR 100UH	
L214	1-404-489-00	COIL	
L215	1-404-489-00	COIL	
L216	1-408-401-00	MICRO INDUCTOR 2.2UH	
L217	1-408-401-00	MICRO INDUCTOR 2.2UH	
L219	1-408-412-00	MICRO INDUCTOR 18UH	
L245	1-408-412-00	MICRO INDUCTOR 18UH	
L254	1-408-607-00	MICRO INDUCTOR 22UH	
L255	1-408-410-00	MICRO INDUCTOR 12UH	
L264	1-408-607-00	MICRO INDUCTOR 22UH	
L265	1-408-410-00	MICRO INDUCTOR 12UH	
L287	1-408-603-00	MICRO INDUCTOR 10UH	
L291	1-408-421-00	MICRO INDUCTOR 100UH	
L801	1-407-365-00	COIL, CHOKE	
L803	1-407-365-00	COIL, CHOKE	
L804	1-408-239-00	MICRO INDUCTOR 4.7MMH	
L805	⚠ 1-459-224-12	HLC	
L806	⚠ 1-421-390-11	COIL, FERRITE (PMC)	
L807	1-437-090-00	HDT	
L852	⚠ 1-459-442-11	COIL (WITH CORE)	
L854	1-408-242-00	MICRO INDUCTOR 10MMH	
L871	1-459-585-11	COIL (WITH CORE) (DRUM TYPE)	
L891	1-408-300-00	MICRO INDUCTOR 6.8UH	

TRANSISTOR

Ref.No.	Part No.	Description	Remark
Q001	8-729-178-54	TRANSISTOR 2SC2785	
Q003	8-729-900-36	TRANSISTOR DTC124ES	
Q004	8-729-900-36	TRANSISTOR DTC124ES	
Q005	8-729-900-36	TRANSISTOR DTC124ES	
Q009	8-729-900-63	TRANSISTOR DTA124ES	
Q025	8-729-117-54	TRANSISTOR 2SA1175	
Q051	8-729-900-36	TRANSISTOR DTC124ES	
Q052	8-729-900-36	TRANSISTOR DTC124ES	
Q053	8-729-178-54	TRANSISTOR 2SC2785	
Q083	8-729-900-63	TRANSISTOR DTA124ES	
Q084	8-729-117-54	TRANSISTOR 2SA1175	
Q200	8-729-105-47	TRANSISTOR 2SC2026	
Q211	8-729-178-54	TRANSISTOR 2SC2785	
Q241	8-729-178-54	TRANSISTOR 2SC2785	
Q242	8-729-178-54	TRANSISTOR 2SC2785	
Q243	8-729-900-36	TRANSISTOR DTC124ES	
Q244	8-729-178-54	TRANSISTOR 2SC2785	
Q245	8-729-900-36	TRANSISTOR DTC124ES	
Q246	8-729-900-36	TRANSISTOR DTC124ES	
Q251	8-729-178-54	TRANSISTOR 2SC2785	
Q252	8-729-178-54	TRANSISTOR 2SC2785	
Q253	8-729-900-36	TRANSISTOR DTC124ES	
Q254	8-729-178-54	TRANSISTOR 2SC2785	
Q261	8-729-178-54	TRANSISTOR 2SC2785	
Q262	8-729-178-54	TRANSISTOR 2SC2785	
Q263	8-729-900-36	TRANSISTOR DTC124ES	
Q264	8-729-178-54	TRANSISTOR 2SC2785	
Q281	8-729-900-36	TRANSISTOR DTC124ES	
Q282	8-729-378-84	TRANSISTOR 2SD788	
Q291	8-729-178-54	TRANSISTOR 2SC2785	
Q292	8-729-117-54	TRANSISTOR 2SA1175	
Q293	8-729-117-54	TRANSISTOR 2SA1175	
Q294	8-729-117-54	TRANSISTOR 2SA1175	
Q501	8-729-178-54	TRANSISTOR 2SC2785	
Q502	8-729-117-54	TRANSISTOR 2SA1175	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description	Remark
Q504	8-729-178-54	TRANSISTOR 2SC2785	
Q551	8-729-195-82	TRANSISTOR 2SC2958	
Q552	8-729-122-02	TRANSISTOR 2SA1220A	
	4-303-483-00	HEAD, WASHER, TAPPING SCREW; Q552	
Q553	8-729-169-02	TRANSISTOR 2SC2690A	
	4-303-483-00	HEAD, WASHER, TAPPING SCREW; Q553	
Q554	8-729-103-43	TRANSISTOR 2SB734	
Q581	8-729-900-89	TRANSISTOR DTC144ES	
Q583	8-729-900-36	TRANSISTOR DTC124ES	
Q584	8-729-900-89	TRANSISTOR DTC144ES	
Q586	8-729-900-89	TRANSISTOR DTC144ES	
Q801	8-729-168-82	TRANSISTOR 2SC2688	
Q802	8-729-300-90	TRANSISTOR 2SD1497-06	
	4-363-414-00	SPACER, MICA; Q802	
	*4-368-683-01	SPRING; Q802	
Q803	8-729-178-54	TRANSISTOR 2SC2785	
Q804	8-729-178-54	TRANSISTOR 2SC2785	
Q805	8-729-177-43	TRANSISTOR 2SD774	
Q806	8-729-103-43	TRANSISTOR 2SB734	
Q831	8-729-309-08	TRANSISTOR 2SC1890A	
Q832	8-729-178-54	TRANSISTOR 2SC2785	
Q833	8-729-178-54	TRANSISTOR 2SC2785	
Q834	8-729-117-54	TRANSISTOR 2SA1175	
Q871	8-719-801-06	TRANSISTOR S6344G	
Q891	8-729-178-54	TRANSISTOR 2SC2785	
Q892	8-729-201-78	TRANSISTOR 2SD1406	
		RESISTOR	
R001	1-249-433-11	CARBON 22K 5% 1/6W	
R002	1-249-433-11	CARBON 22K 5% 1/6W	
R003	1-249-433-11	CARBON 22K 5% 1/6W	
R004	1-249-433-11	CARBON 22K 5% 1/6W	
R005	1-215-900-11	METAL OXIDE 22K 5% 2W	F
R006	1-249-429-11	CARBON 10K 5% 1/6W	
R007	1-247-708-11	CARBON 470 5% 1/4W	
R008	1-249-429-11	CARBON 10K 5% 1/6W	
R011	1-249-467-11	CARBON 68K 5% 1/4W	
R012	1-247-887-00	CARBON 220K 5% 1/6W	
R013	1-247-708-11	CARBON 470 5% 1/4W	
R014	1-249-461-11	CARBON 18K 5% 1/4W	
R016	1-246-525-00	CARBON 150K 5% 1/4W	
R017	1-247-823-00	CARBON 470 5% 1/6W	
R018	1-247-721-11	CARBON 4.7K 5% 1/4W	
R019	1-249-469-11	CARBON 100K 5% 1/6W	
R020	1-246-525-00	CARBON 150K 5% 1/4W	
R021	1-247-713-11	CARBON 1K 5% 1/4W	
R022	1-247-713-11	CARBON 1K 5% 1/4W	
R023	1-247-815-00	CARBON 220 5% 1/6W	
R024	1-249-433-11	CARBON 22K 5% 1/6W	
R025	1-249-425-11	CARBON 4.7K 5% 1/6W	
R026	1-247-725-11	CARBON 10K 5% 1/4W	
R027	1-249-441-11	CARBON 100K 5% 1/6W	
R028	1-247-853-00	CARBON 8.2K 5% 1/6W	
R030	1-249-429-11	CARBON 10K 5% 1/6W	
R032	1-247-725-11	CARBON 10K 5% 1/4W	
R033	1-249-429-11	CARBON 10K 5% 1/6W	
R035	1-247-725-11	CARBON 10K 5% 1/4W	
R038	1-247-823-00	CARBON 470 5% 1/6W	
R039	1-247-823-00	CARBON 470 5% 1/6W	
R040	1-247-823-00	CARBON 470 5% 1/6W	
R041	1-247-708-11	CARBON 470 5% 1/4W	
R042	1-247-708-11	CARBON 470 5% 1/4W	
R043	1-247-708-11	CARBON 470 5% 1/4W	
R044	1-247-708-11	CARBON 470 5% 1/4W	
R045	1-247-823-00	CARBON 470 5% 1/6W	
R046	1-247-708-11	CARBON 470 5% 1/4W	
R047	1-247-823-00	CARBON 470 5% 1/6W	
R048	1-247-823-00	CARBON 470 5% 1/6W	
R049	1-247-883-00	CARBON 150K 5% 1/6W	
R051	1-249-437-11	CARBON 47K 5% 1/6W	
R052	1-249-435-11	CARBON 33K 5% 1/6W	
R053	1-247-723-11	CARBON 6.8K 5% 1/4W	
R058	1-249-425-11	CARBON 4.7K 5% 1/6W	
R059	1-249-423-11	CARBON 3.3K 5% 1/6W	
R061	1-249-429-11	CARBON 10K 5% 1/6W	
R063	1-249-433-11	CARBON 22K 5% 1/6W	
R064	1-247-851-00	CARBON 6.8K 5% 1/6W	
R065	1-249-425-11	CARBON 4.7K 5% 1/6W	
R066	1-247-815-00	CARBON 220 5% 1/6W	
R067	1-247-163-00	CARBON 22K 5% 1/4W	
R068	1-246-511-00	CARBON 39K 5% 1/4W	
R069	1-249-433-11	CARBON 22K 5% 1/6W	
R071	1-247-725-11	CARBON 10K 5% 1/4W	
R078	1-247-721-11	CARBON 4.7K 5% 1/4W	
R083	1-247-853-00	CARBON 8.2K 5% 1/6W	
R084	1-247-897-00	CARBON 560K 5% 1/6W	
R085	1-247-719-11	CARBON 3.3K 5% 1/4W	
R086	1-247-149-00	CARBON 5.6K 5% 1/4W	
R087	1-247-721-11	CARBON 4.7K 5% 1/4W	
R088	1-247-721-11	CARBON 4.7K 5% 1/4W	
R089	1-247-721-11	CARBON 4.7K 5% 1/4W	
R091	1-247-717-11	CARBON 2.2K 5% 1/4W	
R093	1-247-815-00	CARBON 220 5% 1/6W	
R201	1-247-829-00	CARBON 820 5% 1/6W	
R202	1-247-833-00	CARBON 1.2K 5% 1/6W	
R203	1-247-823-00	CARBON 470 5% 1/6W	
R204	1-247-813-00	CARBON 180 5% 1/6W	
R205	1-247-823-00	CARBON 470 5% 1/6W	
R206	1-249-459-11	CARBON 12K 5% 1/4W	
R207	1-247-857-00	CARBON 12K 5% 1/6W	
R208	1-249-417-11	CARBON 1K 5% 1/6W	
R209	1-247-726-11	CARBON 33K 5% 1/4W	
R210	1-247-875-00	CARBON 68K 5% 1/6W	
R211	1-247-717-11	CARBON 2.2K 5% 1/4W	
R212	1-247-839-00	CARBON 2.2K 5% 1/6W	
R214	1-247-803-00	CARBON 68 5% 1/6W	

Ref.No.	Part No.	Description				Remark
R215	1-249-441-11	CARBON	100K	5%	1/6W	
R216	1-249-441-11	CARBON	100K	5%	1/6W	
R217	1-247-823-00	CARBON	470	5%	1/6W	
R218	1-247-785-00	CARBON	12	5%	1/6W	
R231	1-247-815-00	CARBON	220	5%	1/6W	
R232	1-247-883-00	CARBON	150K	5%	1/6W	
R233	1-249-425-11	CARBON	4.7K	5%	1/6W	
R234	1-249-429-11	CARBON	10K	5%	1/6W	
R240	1-247-851-00	CARBON	6.8K	5%	1/6W	
R241	1-249-417-11	CARBON	1K	5%	1/6W	
R242	1-249-417-11	CARBON	1K	5%	1/6W	
R243	1-249-441-11	CARBON	100K	5%	1/6W	
R244	1-249-417-11	CARBON	1K	5%	1/6W	
R245	1-247-815-00	CARBON	220	5%	1/6W	
R246	1-249-417-11	CARBON	1K	5%	1/6W	
R247	1-249-414-11	CARBON	560	5%	1/6W	
R248	1-249-414-11	CARBON	560	5%	1/6W	
R249	1-247-819-00	CARBON	330	5%	1/6W	
R250	1-247-851-00	CARBON	6.8K	5%	1/6W	
R251	1-249-417-11	CARBON	1K	5%	1/6W	
R252	1-247-826-00	CARBON	620	5%	1/6W	
R253	1-249-441-11	CARBON	100K	5%	1/6W	
R254	1-249-423-11	CARBON	3.3K	5%	1/6W	
R255	1-247-706-11	CARBON	330	5%	1/4W	
R256	1-249-405-11	CARBON	100	5%	1/6W	
R257	1-247-833-00	CARBON	1.2K	5%	1/6W	
R258	1-247-819-00	CARBON	330	5%	1/6W	
R259	1-247-819-00	CARBON	330	5%	1/6W	
R260	1-247-851-00	CARBON	6.8K	5%	1/6W	
R261	1-249-417-11	CARBON	1K	5%	1/6W	
R262	1-247-823-00	CARBON	470	5%	1/6W	
R263	1-249-469-11	CARBON	100K	5%	1/4W	
R264	1-249-432-11	CARBON	18K	5%	1/6W	
R265	1-247-819-00	CARBON	330	5%	1/6W	
R266	1-247-833-00	CARBON	1.2K	5%	1/6W	
R267	1-247-833-00	CARBON	1.2K	5%	1/6W	
R268	1-249-417-11	CARBON	1K	5%	1/6W	
R270	1-247-851-00	CARBON	6.8K	5%	1/6W	
R281	1-249-435-11	CARBON	33K	5%	1/6W	
R282	1-249-429-11	CARBON	10K	5%	1/6W	
R283	1-247-725-11	CARBON	10K	5%	1/4W	
R284	1-249-393-11	CARBON	10	5%	1/6W	F
R285	1-249-417-11	CARBON	1K	5%	1/6W	
R291	1-247-726-11	CARBON	33K	5%	1/4W	
R292	1-247-891-00	CARBON	330K	5%	1/6W	
R293	1-249-429-11	CARBON	10K	5%	1/6W	
R294	1-247-823-00	CARBON	470	5%	1/6W	
R295	1-249-433-11	CARBON	22K	5%	1/6W	
R296	1-249-433-11	CARBON	22K	5%	1/6W	
R297	1-249-433-11	CARBON	22K	5%	1/6W	
R500	1-215-883-11	METAL OXIDE	33	5%	2W	F
R501	1-249-405-11	CARBON	100	5%	1/6W	
R502	1-249-405-11	CARBON	100	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R503	1-247-823-00	CARBON	470	5%	1/6W	
R504	1-247-819-00	CARBON	330	5%	1/6W	
R505	1-247-705-11	CARBON	270	5%	1/4W	
R506	1-249-417-11	CARBON	1K	5%	1/6W	
R507	1-247-713-11	CARBON	1K	5%	1/6W	
R508	1-249-422-11	CARBON	2.7K	5%	1/6W	
R509	1-247-845-00	CARBON	3.9K	5%	1/6W	
R510	1-247-873-00	CARBON	56K	5%	1/6W	
R511	1-215-461-00	METAL	47K	1%	1/6W	
R512	1-249-417-11	CARBON	1K	5%	1/6W	
R513	1-215-475-00	METAL	180K	1%	1/6W	
R514	1-215-455-00	METAL	27K	1%	1/6W	
R515	1-249-429-11	CARBON	10K	5%	1/6W	
R516	1-215-463-00	METAL	56K	1%	1/6W	
R517	1-249-429-11	CARBON	10K	5%	1/6W	
R518	1-247-849-00	CARBON	5.6K	5%	1/6W	
R519	1-249-415-11	CARBON	680	5%	1/6W	
R520	1-249-414-11	CARBON	560	5%	1/6W	
R521	1-247-726-11	CARBON	33K	5%	1/4W	
R522	1-247-819-00	CARBON	330	5%	1/6W	
R523	1-247-819-00	CARBON	330	5%	1/6W	
R524	1-214-768-00	METAL	43K	1%	1/4W	
R525	1-249-427-11	CARBON	6.8K	5%	1/6W	F
R526	1-249-393-11	CARBON	10	5%	1/6W	F
R527	1-216-434-11	METAL OXIDE	1.8K	5%	1W	F
R528	1-216-464-11	METAL OXIDE	18K	5%	2W	F
R529	1-247-719-11	CARBON	3.3K	5%	1/4W	
R530	1-247-177-00	CARBON	82K	5%	1/4W	
R531	1-249-440-11	CARBON	82K	5%	1/6W	
R532	1-249-459-11	CARBON	12K	5%	1/4W	
R533	1-249-434-11	CARBON	27K	5%	1/6W	
R534	1-249-417-11	CARBON	1K	5%	1/6W	
R535	1-249-417-11	CARBON	1K	5%	1/6W	
R536	1-247-849-00	CARBON	5.6K	5%	1/6W	
R537	1-249-425-11	CARBON	4.7K	5%	1/6W	
R538	1-249-417-11	CARBON	1K	5%	1/6W	
R539	1-249-429-11	CARBON	10K	5%	1/6W	
R540	1-247-706-11	CARBON	330	5%	1/4W	
R541	1-247-883-00	CARBON	150K	5%	1/6W	
R542	1-249-441-11	CARBON	100K	5%	1/6W	
R543	1-249-752-11	CARBON	3.9M	5%	1/4W	
R544	1-215-411-00	METAL	390	1%	1/6W	
R545	1-215-411-00	METAL	390	1%	1/6W	
R549	1-249-469-11	CARBON	100K	5%	1/4W	
R551	1-247-833-00	CARBON	1.2K	5%	1/6W	
R552	1-247-688-11	CARBON	10	5%	1/4W	F
R553	1-217-399-00	FUSIBLE	100	5%	1/4W	F
R554	1-249-399-11	CARBON	33	5%	1/6W	F
R555	1-216-433-00	METAL OXIDE	1.2K	5%	1W	F
R556	1-247-700-11	CARBON	100	5%	1/4W	F
R557	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R558	1-216-350-11	METAL OXIDE	1.2	5%	1W	F
R559	1-249-432-11	CARBON	18K	5%	1/6W	

A **C**

Ref.No.	Part No.	Description				Remark
R561	1-216-432-00	METAL OXIDE	820	5%	1W	F
R562	1-216-354-11	METAL OXIDE	2.7	5%	1W	F
R563	1-247-769-00	CARBON	2.7	5%	1/6W	
R564	1-247-845-00	CARBON	3.9K	5%	1/6W	
R565	1-249-425-11	CARBON	4.7K	5%	1/6W	
R566	1-215-867-00	METAL OXIDE	470	5%	1W	F
R567	1-216-431-11	METAL OXIDE	560	5%	1W	F
R583	1-249-465-11	CARBON	47K	5%	1/4W	
R584	1-246-531-00	CARBON	270K	5%	1/4W	
R585	1-247-903-00	CARBON	1M	5%	1/6W	
R587	1-214-784-00	METAL	200K	1%	1/4W	
R588	1-249-423-11	CARBON	3.3K	5%	1/6W	
R590	1-249-437-11	CARBON	47K	5%	1/6W	
R801	1-247-109-00	CARBON	120	5%	1/4W	
R802	1-249-465-11	CARBON	47K	5%	1/4W	
R803	1-247-839-00	CARBON	2.2K	5%	1/6W	
R804	1-249-425-11	CARBON	4.7K	5%	1/6W	
R805	1-249-420-11	CARBON	1.8K	5%	1/6W	F
R806	1-216-431-11	METAL OXIDE	560	5%	1W	F
R808	1-249-405-11	CARBON	100	5%	1/6W	
R809	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R810	1-215-880-00	METAL OXIDE	10	5%	2W	F
R811	1-215-862-11	METAL OXIDE	68	5%	1W	F
R812	1-247-851-00	CARBON	6.8K	5%	1/6W	
R813	1-247-713-11	CARBON	1K	5%	1/4W	
R814	1-249-429-11	CARBON	10K	5%	1/6W	
R815	1-247-829-00	CARBON	820	5%	1/6W	
R816	1-247-710-11	CARBON	560	5%	1/4W	
R817	1-249-405-11	CARBON	100	5%	1/6W	
R818	1-215-460-00	METAL	43K	1%	1/6W	
R819	1-247-803-00	CARBON	68	5%	1/6W	
R821	1-207-612-00	WIREWOUND	0.1	10%	2W	F
R831	1-215-445-00	METAL	10K	1%	1/6W	
R832	1-215-445-00	METAL	10K	1%	1/6W	
⧓R834⚠	[illegible]	METAL	[illegible]	[illegible]	1/6W	
R835	1-249-469-11	CARBON	100K	5%	1/4W	
R836	1-215-443-00	METAL	8.2K	1%	1/6W	
R837	1-215-466-00	METAL	75K	1%	1/6W	
R838	1-214-910-81	METAL	75K	1%	1/2W	
R839	1-215-876-00	METAL OXIDE	15K	5%	1W	F
R840	1-249-460-11	CARBON	15K	5%	1/4W	
R841	1-247-887-00	CARBON	220K	5%	1/6W	
R842	1-249-429-11	CARBON	10K	5%	1/6W	
R843	1-247-725-11	CARBON	10K	5%	1/4W	
R851	1-249-382-11	CARBON	1.2	5%	1/6W	F
R852	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R853	1-249-377-11	CARBON	0.47	5%	1/6W	F
R854	1-249-377-11	CARBON	0.47	5%	1/6W	F
R855	1-216-445-11	METAL OXIDE	12	5%	2W	F
R857	1-202-822-00	SOLID	2.2K	10%	1/2W	
R858	1-247-149-00	CARBON	5.6K	5%	1/4W	
R859	1-215-461-00	METAL	47K	1%	1/6W	
R860	1-249-382-11	CARBON	1.2	5%	1/6W	F
R861	1-217-383-00	FUSIBLE	4.7	5%	1/4W	F
R862	1-217-383-00	FUSIBLE	4.7	5%	1/4W	F
R863	1-247-149-00	CARBON	5.6K	5%	1/4W	
R886	1-207-678-00	WIREWOUND	10	10%	5W	F
R887	1-207-678-00	WIREWOUND	10	10%	5W	F
R889	1-247-177-00	CARBON	82K	5%	1/4W	
R892	1-247-717-11	CARBON	2.2K	5%	1/4W	
R893	1-216-428-00	METAL OXIDE	180	5%	1W	F

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV201	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K
RV501	1-224-251-XX	RES, ADJ, METAL GLAZE 4.7K
RV502	1-230-633-51	RES, ADJ, CARBON 47K
RV503	1-230-624-51	RES, ADJ, CARBON 220
RV551	1-230-630-11	RES, ADJ, CARBON 10K
RV801	1-228-720-00	RES, ADJ, CERAMIC CARBON 1K

FILTER

Ref.No.	Part No.	Description
SF201	1-404-701-11	SAWF

SPARK GAP

Ref.No.	Part No.	Description
SG801	1-519-063-XX	DISCHARGING GAP

TRANSFORMER

Ref.No.	Part No.	Description
T202	1-404-465-00	COIL, VIF (MOLD TYPE)
T203	1-404-489-00	COIL
T801	1-437-090-00	HDT

THERMISTOR

Ref.No.	Part No.	Description
TH551	1-800-945-00	THERMISTOR S-10K

TUNER

Ref.No.	Part No.	Description
TU291⚠	1-463-661-11	TUNER, ET (BT-886)

CRYSTAL

Ref.No.	Part No.	Description
X001	1-567-686-11	OSCILLATOR, CERAMIC

****

*A-1330-737-A C BOARD, COMPLETE
****

CONNECTOR

Ref.No.	Part No.	Description
C1	*1-506-371-00	2P PLUG (L)
C2	*1-508-768-00	6P PLUG
C3	*1-566-059-11	PIN, CONNECTOR 7P
C4	*1-566-054-11	PIN, CONNECTOR 2P
C5	*1-566-054-11	PIN, CONNECTOR 2P

CAPACITOR

Ref.No.	Part No.	Description			
C701	1-162-115-00	CERAMIC	330PF	10%	2KV
C702	1-129-779-00	FILM	0.022MF	20%	1KV
C703	1-123-619-00	ELECT	4.7MF	20%	50V

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- *The components identified by ⧓ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.*

Ref.No.	Part No.	Description				Remark
C704	1-123-946-00	ELECT	4.7MF	20%	250V	
C706	1-129-714-00	FILM	0.01MF	10%	630V	
C708	1-102-111-00	CERAMIC	270PF	10%	50V	
C709	1-102-109-00	CERAMIC	180PF	10%	50V	
C710	1-102-110-00	CERAMIC	220PF	10%	50V	
C711	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C712	1-123-356-00	ELECT	10MF	20%	25V	
C713	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C714	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C715	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C751	1-102-971-00	CERAMIC	82PF	5%	50V	
C752	1-108-617-91	MYLAR	0.0018MF	10%	100V	
C753	1-108-634-81	MYLAR	0.047MF	10%	100V	
C754	1-123-356-00	ELECT	10MF	20%	25V	
C755	1-102-980-00	CERAMIC	270PF	5%	50V	
C756	1-106-196-00	MYLAR	0.01MF	10%	100V	
C758	1-106-196-00	MYLAR	0.01MF	10%	100V	
C760	1-106-196-00	MYLAR	0.01MF	10%	100V	
C761	1-106-220-00	MYLAR	0.1MF	10%	100V	
C762	1-106-196-00	MYLAR	0.01MF	10%	100V	
C763	1-124-907-00	ELECT	10MF	20%	50V	
C764	1-123-321-00	ELECT	220MF	20%	16V	
C765	1-124-122-11	ELECT	100MF	20%	50V	
C766	1-124-903-00	ELECT	1MF	20%	50V	
		DIODE				
D701	8-719-911-19	DIODE 1SS119				
D702	8-719-911-19	DIODE 1SS119				
D703	8-719-911-19	DIODE 1SS119				
D704	8-719-911-19	DIODE 1SS119				
D705	8-719-911-19	DIODE 1SS119				
D706	8-719-911-19	DIODE 1SS119				
		JACK				
J701	⚠ 1-526-644-41	SOCKET, CRT				
		COIL				
L701	1-407-701-00	MICRO INDUCTOR 47UH				
L702	1-408-454-21	MICRO INDUCTOR 100UH				
L703	1-408-454-21	MICRO INDUCTOR 100UH				
L704	1-408-454-21	MICRO INDUCTOR 100UH				
L751	1-407-697-00	MICRO INDUCTOR 22UH				
		TRANSISTOR				
Q701	8-729-178-54	TRANSISTOR 2SC2785				
Q702	8-729-326-11	TRANSISTOR 2SC2611				
Q703	8-729-178-54	TRANSISTOR 2SC2785				
Q704	8-729-326-11	TRANSISTOR 2SC2611				
Q705	8-729-178-54	TRANSISTOR 2SC2785				
Q706	8-729-326-11	TRANSISTOR 2SC2611				
Q751	8-729-178-54	TRANSISTOR 2SC2785				
Q752	8-729-178-54	TRANSISTOR 2SC2785				
Q753	8-729-178-54	TRANSISTOR 2SC2785				
Q754	8-729-103-43	TRANSISTOR 2SB734				
Q755	8-729-177-43	TRANSISTOR 2SD774				
Q756	8-729-177-43	TRANSISTOR 2SD774				
Q757	8-729-178-54	TRANSISTOR 2SC2785				
		RESISTOR				
R701	1-202-846-00	SOLID	470K	10%	1/2W	
R702	1-202-720-00	SOLID	1.2M	10%	1/2W	
R703	1-202-844-00	SOLID	330K	10%	1/2W	
R704	1-202-836-00	SOLID	56K	10%	1/2W	
R705	1-202-846-00	SOLID	470K	10%	1/2W	
R706	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R707	1-202-842-91	SOLID	220K	10%	1/2W	
R708	1-202-824-00	SOLID	3.3K	10%	1/2W	
R709	1-202-824-00	SOLID	3.3K	10%	1/2W	
R711	1-202-549-00	SOLID	100	10%	1/2W	
R712	1-202-543-92	SOLID	56	10%	1/2W	
R713	1-202-824-00	SOLID	3.3K	10%	1/2W	
R714	1-247-700-11	CARBON	100	5%	1/4W	F
R715	1-247-706-11	CARBON	330	5%	1/4W	
R716	1-215-416-00	METAL	620	1%	1/6W	
R717	1-249-425-11	CARBON	4.7K	5%	1/6W	
R718	1-247-791-00	CARBON	22	5%	1/6W	
R719	1-249-422-11	CARBON	2.7K	5%	1/6W	
R720	1-249-414-11	CARBON	560	5%	1/6W	
R722	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R723	1-247-819-00	CARBON	330	5%	1/6W	
R724	1-249-414-11	CARBON	560	5%	1/6W	
R725	1-249-425-11	CARBON	4.7K	5%	1/6W	
R726	1-247-791-00	CARBON	22	5%	1/6W	
R727	1-249-422-11	CARBON	2.7K	5%	1/6W	
R728	1-249-414-11	CARBON	560	5%	1/6W	
R730	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R731	1-247-706-11	CARBON	330	5%	1/4W	
R732	1-247-821-00	CARBON	390	5%	1/6W	
R733	1-249-425-11	CARBON	4.7K	5%	1/6W	
R734	1-247-857-00	CARBON	12K	5%	1/6W	
R735	1-247-791-00	CARBON	22	5%	1/6W	
R737	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R751	1-247-815-00	CARBON	220	5%	1/6W	
R752	1-247-815-00	CARBON	220	5%	1/6W	
R753	1-247-833-00	CARBON	1.2K	5%	1/6W	
R754	1-247-829-00	CARBON	820	5%	1/6W	
R755	1-215-871-11	METAL OXIDE	2.2K	5%	1W	F
R756	1-249-414-11	CARBON	560	5%	1/6W	
R757	1-247-849-00	CARBON	5.6K	5%	1/6W	
R758	1-249-435-11	CARBON	33K	5%	1/6W	
R759	1-249-393-11	CARBON	10	5%	1/6W	F
R760	1-247-819-00	CARBON	330	5%	1/6W	
R761	1-247-815-00	CARBON	220	5%	1/6W	
R762	1-247-815-00	CARBON	220	5%	1/6W	
R764	1-249-417-11	CARBON	1K	5%	1/6W	
R765	1-249-389-11	CARBON	4.7	5%	1/6W	F

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

C **DF** **D**

Ref.No.	Part No.	Description				Remark
R766	1-249-435-11	CARBON	33K	5%	1/6W	
R767	1-249-429-11	CARBON	10K	5%	1/6W	
R768	1-249-435-11	CARBON	33K	5%	1/6W	
R769	1-249-417-11	CARBON	1K	5%	1/6W	
R771	1-249-437-11	CARBON	47K	5%	1/6W	
R772	1-249-397-11	CARBON	22	5%	1/6W	F
R773	1-247-801-00	CARBON	56	5%	1/6W	
R776	1-249-389-11	CARBON	4.7	5%	1/6W	F

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV701	1-226-157-00	RES, ADJ, METAL GLAZE 1M
RV702	1-230-104-00	RES, ADJ, CARBON 4.7K
RV703	1-230-104-00	RES, ADJ, CARBON 4.7K
RV704	1-230-104-00	RES, ADJ, CARBON 4.7K
RV705	1-230-104-00	RES, ADJ, CARBON 4.7K
RV706	1-230-104-00	RES, ADJ, CARBON 4.7K
RV707	1-230-104-00	RES, ADJ, CARBON 4.7K

****

*1-620-095-11 DF BOARD
****

CAPACITOR

Ref.No.	Part No.	Description			
C881 ⚠.	1-108-634-81	MYLAR	0.047MF	10%	100V

COIL

Ref.No.	Part No.	Description
L881 ⚠.	1-459-074-11	COIL, DUST CORE 6.8MMH(HCC)

RESISTOR

Ref.No.	Part No.	Description		
R888 ⚠.	1-202-822-51	SOLID	2.2K	1/2W

Ref.No.	Part No.	Description
T881 ⚠.	1-413-059-11	TRANSFORMER, FERRITE (DFT)

****

*A-1340-864-A D BOARD, COMPLETE
****

*1-562-370-21 CONNECTOR, BOARD TO BOARD 18P

CAPACITOR

Ref.No.	Part No.	Description			
C1501	1-108-630-91	MYLAR	0.022MF	10%	100V
C1503	1-106-196-00	MYLAR	0.01MF	10%	100V
C1504	1-124-903-00	ELECT	1MF	20%	50V
C1505	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1506	1-124-905-11	ELECT	3.3MF	20%	50V
C1507	1-124-908-11	ELECT	22MF	20%	50V
C1508	1-124-902-00	ELECT	0.47MF	20%	50V
C1509	1-124-122-11	ELECT	100MF	20%	50V
C1510	1-124-903-00	ELECT	1MF	20%	50V
C1511	1-124-903-00	ELECT	1MF	20%	50V
C1512	1-106-196-00	MYLAR	0.01MF	10%	100V
C1513	1-123-332-00	ELECT	47MF	20%	16V
C1514	1-124-908-11	ELECT	22MF	20%	50V
C1515	1-124-908-11	ELECT	22MF	20%	50V
C1516	1-124-122-11	ELECT	100MF	20%	50V
C1517	1-124-905-11	ELECT	3.3MF	20%	50V
C1518	1-106-192-00	MYLAR	0.0068MF	10%	100V
C1519	1-108-632-81	MYLAR	0.033MF	10%	100V
C1520	1-124-445-00	ELECT	100MF	20%	16V
C1521	1-108-637-00	MYLAR	0.082MF	10%	100V
C1522	1-108-630-91	MYLAR	0.022MF	10%	100V
C1523	1-124-907-00	ELECT	10MF	20%	50V
C1524	1-106-190-00	MYLAR	0.0056MF	10%	100V
C1525	1-129-701-00	FILM	0.01MF	5%	100V
C1526	1-102-125-00	CERAMIC	0.0047MF	10%	50V
C1527	1-106-196-00	MYLAR	0.01MF	10%	100V

DIODE

Ref.No.	Part No.	Description
D1501	8-719-911-19	DIODE 1SS119
D1502	8-719-911-19	DIODE 1SS119

IC

Ref.No.	Part No.	Description
IC1501	8-759-905-39	IC TDA1082

COIL

Ref.No.	Part No.	Description
L1501	1-408-245-00	MICRO INDUCTOR 22MMH
L1502	1-407-509-00	MICRO INDUCTOR 27MMH
L1503	1-408-242-00	MICRO INDUCTOR 10MMH
L1504	1-408-247-00	MICRO INDUCTOR 33MMH

TRANSISTOR

Ref.No.	Part No.	Description
Q1501	8-729-178-54	TRANSISTOR 2SC2785
Q1502	8-729-178-54	TRANSISTOR 2SC2785
Q1503	8-729-103-43	TRANSISTOR 2SB734
Q1504	8-729-195-82	TRANSISTOR 2SC2958

RESISTOR

Ref.No.	Part No.	Description			
R1501	1-247-799-00	CARBON	82	5%	1/6W
R1502	1-247-145-00	CARBON	3.9K	5%	1/4W
R1503	1-249-415-11	CARBON	680	5%	1/6W
R1504	1-249-432-11	CARBON	18K	5%	1/6W
R1505	1-249-423-11	CARBON	3.3K	5%	1/6W
R1506	1-249-432-11	CARBON	18K	5%	1/6W
R1508	1-249-432-11	CARBON	18K	5%	1/6W
R1509	1-246-453-00	CARBON	150	5%	1/4W
R1510	1-249-417-11	CARBON	1K	5%	1/6W
R1511	1-246-535-00	CARBON	390K	5%	1/4W
R1512	1-247-893-00	CARBON	390K	5%	1/6W
R1513	1-247-829-00	CARBON	820	5%	1/6W
R1514	1-247-815-00	CARBON	220	5%	1/6W
R1515	1-246-535-00	CARBON	390K	5%	1/4W
R1516	1-249-429-11	CARBON	10K	5%	1/6W

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				Remark
R1517	1-247-719-11	CARBON	3.3K	5%	1/4W	
R1518	1-249-465-11	CARBON	47K	5%	1/4W	
R1519	1-249-419-11	CARBON	1.5K	5%	1/6W	
R1520	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1521	1-249-435-11	CARBON	33K	5%	1/6W	
R1522	1-249-435-11	CARBON	33K	5%	1/6W	
R1523	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1524	1-247-811-00	CARBON	150	5%	1/6W	
R1525	1-249-429-11	CARBON	10K	5%	1/6W	
R1526	1-247-725-11	CARBON	10K	5%	1/4W	
R1527	1-247-787-00	CARBON	15	5%	1/6W	
R1528	1-249-414-11	CARBON	560	5%	1/6W	
R1529	1-249-434-11	CARBON	27K	5%	1/6W	
R1530	1-216-451-11	METAL OXIDE	120	5%	2W	F
R1531	1-215-865-11	METAL OXIDE	220	5%	1W	F
R1532	1-247-809-00	CARBON	120	5%	1/6W	
R1533	1-247-242-00	CARBON	1.2K	5%	1/2W	
R1534	1-247-803-00	CARBON	68	5%	1/6W	
R1535	1-216-423-11	METAL OXIDE	27	5%	1W	F
R1536	1-247-893-00	CARBON	390K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV1501	1-230-625-11	RES, ADJ, CARBON 330
RV1502	1-230-634-51	RES, ADJ, CARBON 100K
RV1503	1-230-634-51	RES, ADJ, CARBON 100K
RV1504	1-226-771-00	RES, ADJ, METAL GLAZE 1K
RV1505	1-230-628-11	RES, ADJ, CARBON 2.2K
RV1506	1-230-634-51	RES, ADJ, CARBON 100K
RV1507	1-230-630-11	RES, ADJ, CARBON 10K
RV1508	1-230-627-11	RES, ADJ, CARBON 1K
RV1509	1-230-271-00	RES, ADJ, CARBON 4.7K
RV1510	1-230-628-11	RES, ADJ, CARBON 2.2K
RV1511	1-230-625-11	RES, ADJ, CARBON 330

THERMISTOR

Ref.No.	Part No.	Description
TH1501	1-806-110-00	THERMISTOR
TH1502	1-800-625-00	THERMISTOR

* * *

Ref.No.	Part No.	Description
	*1-619-601-11	H1 BOARD ********
	*1-566-057-11	PIN, CONNECTOR 5P
	*1-566-057-11	PIN, CONNECTOR 5P
	*1-566-062-11	PIN, CONNECTOR 10P
	*4-380-621-01	HOLDER (B), LED

DIODE

Ref.No.	Part No.	Description
D007	8-719-812-41	DIODE TLR124

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV001	1-237-386-11	RES, VAR, CARBON 10K/10K/10K
RV951	1-237-387-11	RES, VAR, CARBON 10K/10K/10K

SWITCH

Ref.No.	Part No.	Description	Remark
S001	1-552-765-00	SWITCH, KEYBOARD	
S002	1-552-765-00	SWITCH, KEYBOARD	
S003	1-552-765-00	SWITCH, KEYBOARD	
S004	1-552-765-00	SWITCH, KEYBOARD	
S005	1-552-765-00	SWITCH, KEYBOARD	
S006	1-554-804-11	SWITCH, PUSH (1 KEY)	
S007	1-554-804-11	SWITCH, PUSH (1 KEY)	
S008	1-554-804-11	SWITCH, PUSH (1 KEY)	
S009	1-554-804-11	SWITCH, PUSH (1 KEY)	
S010	1-554-804-11	SWITCH, PUSH (1 KEY)	
S011	1-554-804-11	SWITCH, PUSH (1 KEY)	
S012	1-554-804-11	SWITCH, PUSH (1 KEY)	
S013	1-554-804-11	SWITCH, PUSH (1 KEY)	

* * *

Ref.No.	Part No.	Description
	*1-619-602-11	H2 BOARD ********
	*4-362-612-00	HOLDER (B), LED
	*4-382-130-01	COVER, RAY CATCHER

DIODE

Ref.No.	Part No.	Description
D01	8-719-921-55	DIODE SLP155B
D02	8-719-921-55	DIODE SLP155B
D03	8-719-928-49	DIODE SLP455B-01
D04	8-719-928-49	DIODE SLP455B-01
D05	8-719-955-32	DIODE PG5531KX
D06	8-719-928-49	DIODE SLP455B-01

IC

Ref.No.	Part No.	Description
IC01	8-741-138-70	IC BX-1387

RESISTOR

Ref.No.	Part No.	Description			
R01	1-249-405-11	CARBON	100	5%	1/6W
R02	1-249-405-11	CARBON	100	5%	1/6W

* * *

Ref.No.	Part No.	Description
	*A-1381-057-A	Y BOARD, COMPLETE ****************

CAPACITOR

Ref.No.	Part No.	Description			
C951	1-124-907-00	ELECT	10MF	20%	50V
C952	1-124-907-00	ELECT	10MF	20%	50V
C953	1-124-445-00	ELECT	100MF	20%	16V
C954	1-108-622-91	MYLAR	0.0047MF	10%	100V
C955	1-136-169-00	FILM	0.22MF	5%	50V
C956	1-108-622-91	MYLAR	0.0047MF	10%	100V
C957	1-136-169-00	FILM	0.22MF	5%	50V
C958	1-123-332-00	ELECT	47MF	20%	16V
C959	1-124-907-00	ELECT	10MF	20%	50V
C960	1-124-907-00	ELECT	10MF	20%	50V

Y **K2**

Ref.No.	Part No.	Description				Remark
C961	1-123-321-00	ELECT	220MF	20%	16V	
C962	1-124-903-00	ELECT	1MF	20%	50V	
C963	1-124-903-00	ELECT	1MF	20%	50V	
C964	1-124-907-00	ELECT	10MF	20%	50V	
C965	1-124-903-00	ELECT	1MF	20%	50V	
C966	1-108-843-91	MYLAR	0.033MF	10%	50V	
C967	1-124-904-00	ELECT	2.2MF	20%	50V	
C968	1-124-903-00	ELECT	1MF	20%	50V	
C969	1-124-903-00	ELECT	1MF	20%	50V	
C970	1-123-332-00	ELECT	47MF	20%	16V	
C971	1-123-332-00	ELECT	47MF	20%	16V	
C972	1-124-907-00	ELECT	10MF	20%	50V	
C973	1-136-166-00	FILM	0.12MF	5%	50V	
C974	1-136-166-00	FILM	0.12MF	5%	50V	
C975	1-124-901-00	ELECT	1000MF	20%	35V	
C976	1-124-901-00	ELECT	1000MF	20%	35V	
C977	1-124-618-11	ELECT	2200MF	20%	35V	
C978	1-124-121-00	ELECT	100MF	20%	35V	
C979	1-123-321-00	ELECT	220MF	20%	16V	

DIODE

Ref.No.	Part No.	Description
D951	8-719-109-92	DIODE RD6.2ES-B1
D952	8-719-110-33	DIODE RD12ES-B3
D953	8-719-911-19	DIODE 1SS119
D954	8-719-000-12	DIODE MC931
D955	8-719-000-12	DIODE MC931
D956	8-719-911-19	DIODE 1SS119
D957	8-719-911-19	DIODE 1SS119
D958	8-719-911-19	DIODE 1SS119

IC

Ref.No.	Part No.	Description
IC951	8-759-276-30	IC TA7630P
IC952	8-759-205-84	IC TA7273P

COIL

Ref.No.	Part No.	Description
L951	1-408-429-00	MICRO INDUCTOR 470UH

TRANSISTOR

Ref.No.	Part No.	Description
Q951	8-729-178-54	TRANSISTOR 2SC2785
Q952	8-729-117-54	TRANSISTOR 2SA1175
Q953	8-729-117-54	TRANSISTOR 2SA1175
Q954	8-729-178-54	TRANSISTOR 2SC2785

RESISTOR

Ref.No.	Part No.	Description				Remark
R951	1-249-417-11	CARBON	1K	5%	1/6W	
R952	1-247-713-11	CARBON	1K	5%	1/4W	
R953	1-249-441-11	CARBON	100K	5%	1/6W	
R954	1-249-441-11	CARBON	100K	5%	1/6W	
R955	1-249-419-11	CARBON	1.5K	5%	1/6W	
R956	1-249-419-11	CARBON	1.5K	5%	1/6W	
R957	1-247-833-00	CARBON	1.2K	5%	1/6W	
R958	1-249-429-11	CARBON	10K	5%	1/6W	
R959	1-249-429-11	CARBON	10K	5%	1/6W	
R960	1-249-429-11	CARBON	10K	5%	1/6W	
R961	1-247-725-11	CARBON	10K	5%	1/4W	
R962	1-249-429-11	CARBON	10K	5%	1/6W	
R964	1-247-721-11	CARBON	4.7K	5%	1/4W	
R965	1-249-435-11	CARBON	33K	5%	1/6W	
R966	1-216-455-11	METAL OXIDE	560	5%	2W	F
R967	1-247-891-00	CARBON	330K	5%	1/6W	
R968	1-247-895-00	CARBON	470K	5%	1/6W	
R969	1-249-419-11	CARBON	1.5K	5%	1/6W	
R970	1-247-135-00	CARBON	1.5K	5%	1/4W	
R971	1-247-903-00	CARBON	1M	5%	1/6W	
R972	1-249-429-11	CARBON	10K	5%	1/6W	
R973	1-247-725-11	CARBON	10K	5%	1/4W	
R974	1-249-437-11	CARBON	47K	5%	1/6W	
R975	1-247-163-00	CARBON	22K	5%	1/4W	
R976	1-249-429-11	CARBON	10K	5%	1/6W	
R977	1-246-409-00	CARBON	2.2	5%	1/4W	
R978	1-246-409-00	CARBON	2.2	5%	1/4W	
R979	1-247-713-11	CARBON	1K	5%	1/4W	
R980	1-247-713-11	CARBON	1K	5%	1/4W	
R981	1-249-433-11	CARBON	22K	5%	1/6W	
R982	1-249-417-11	CARBON	1K	5%	1/6W	
R983	1-249-429-11	CARBON	10K	5%	1/6W	
R984	1-249-405-11	CARBON	100	5%	1/6W	F
R985	1-249-417-11	CARBON	1K	5%	1/6W	
R986	1-247-713-11	CARBON	1K	5%	1/4W	
R987	1-247-713-11	CARBON	1K	5%	1/4W	
R988	1-249-425-11	CARBON	4.7K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV952	1-228-996-00	RES, ADJ, CARBON 47K

CONNECTOR

Ref.No.	Part No.	Description
Y1	*1-566-056-11	PIN, CONNECTOR 4P
Y2	*1-566-054-11	PIN, CONNECTOR 2P
Y3	*1-566-055-11	PIN, CONNECTOR 3P
Y4	*1-566-057-11	PIN, CONNECTOR 5P
Y5	*1-566-054-11	PIN, CONNECTOR 2P

****

*1-619-600-11 K2 BOARD
****

*1-566-044-11 PIN, CONNECTOR 5P

CAPACITOR

Ref.No.	Part No.	Description			
C106	1-102-114-00	CERAMIC	470PF	10%	50V
C111	1-102-114-00	CERAMIC	470PF	10%	50V

JACK

Ref.No.	Part No.	Description
J102	1-563-547-11	JACK BLOCK, PIN (BNC) 3P

RESISTOR

Ref.No.	Part No.	Description			Remark
R105	1-249-425-11	CARBON	4.7K	5%	1/6W
R106	1-249-425-11	CARBON	4.7K	5%	1/6W
R133	1-247-804-00	CARBON	75	5%	1/6W

****

*A-1394-113-A K1 BOARD, COMPLETE
****

Ref.No.	Part No.	Description
	*1-564-354-00	PLUG, CONNECTOR (2.5MM) 3P
	*1-564-443-11	PLUG, CONNECTOR (2.5MM) 7P
	*1-564-446-11	PLUG, CONNECTOR (2.5MM) 10P
	*1-566-056-11	PIN, CONNECTOR 4P
	*1-566-057-11	PIN, CONNECTOR 5P

CAPACITOR

Ref.No.	Part No.	Description				Remark
C101	1-124-259-00	ELECT	4.7MF	20%	50V	
C102	1-124-259-00	ELECT	4.7MF	20%	50V	
C103	1-124-259-00	ELECT	4.7MF	20%	50V	
C104	1-102-114-00	CERAMIC	470PF	10%	50V	
C105	1-102-114-00	CERAMIC	470PF	10%	50V	
C107	1-124-233-00	ELECT	10MF	20%	16V	
C108	1-124-235-91	ELECT	33MF	20%	16V	
C109	1-102-114-00	CERAMIC	470PF	10%	50V	
C110	1-102-114-00	CERAMIC	470PF	10%	50V	
C112	1-124-259-00	ELECT	4.7MF	20%	50V	
C113	1-124-259-00	ELECT	4.7MF	20%	50V	
C114	1-124-259-00	ELECT	4.7MF	20%	50V	
C115	1-124-233-00	ELECT	10MF	20%	16V	
C116	1-124-235-91	ELECT	33MF	20%	16V	
C117	1-124-233-00	ELECT	10MF	20%	16V	
C118	1-124-235-91	ELECT	33MF	20%	16V	
C119	1-124-236-00	ELECT	47MF	20%	16V	
C120	1-124-235-91	ELECT	33MF	20%	16V	
C121	1-124-236-00	ELECT	47MF	20%	16V	
C122	1-124-235-91	ELECT	33MF	20%	16V	
C123	1-124-235-91	ELECT	33MF	20%	16V	
C130	1-124-235-91	ELECT	33MF	20%	16V	
C131	1-124-235-91	ELECT	33MF	20%	16V	
C132	1-124-235-91	ELECT	33MF	20%	16V	
C133	1-124-235-91	ELECT	33MF	20%	16V	
C134	1-124-233-00	ELECT	10MF	20%	16V	
C135	1-102-959-00	CERAMIC	22PF	5%	50V	
C136	1-101-004-00	CERAMIC	0.01MF		50V	
C137	1-124-236-00	ELECT	47MF	20%	16V	
C139	1-124-119-00	ELECT	330MF	20%	16V	
C141	1-101-003-00	CERAMIC	0.0047MF		50V	
C142	1-101-003-00	CERAMIC	0.0047MF		50V	
C143	1-101-003-00	CERAMIC	0.0047MF		50V	
C144	1-101-003-00	CERAMIC	0.0047MF		50V	
C156	1-124-233-00	ELECT	10MF	20%	16V	
C998	1-136-173-00	FILM	0.47MF	5%	50V	
C999	1-136-173-00	FILM	0.47MF	5%	50V	
C1201	1-124-233-00	ELECT	10MF	20%	16V	
C1202	1-108-622-91	MYLAR	0.0047MF	10%	100V	
C1203	1-124-233-00	ELECT	10MF	20%	16V	
C1204	1-124-233-00	ELECT	10MF	20%	16V	
C1205	1-108-630-91	MYLAR	0.022MF	10%	100V	
C1206	1-106-196-00	MYLAR	0.01MF	10%	100V	
C1207	1-124-258-00	ELECT	3.3MF	20%	50V	
C1208	1-130-309-00	FILM	0.033MF	5%	100V	
C1209	1-124-233-00	ELECT	10MF	20%	16V	
C1211	1-124-259-00	ELECT	4.7MF	20%	50V	
C1213	1-124-233-00	ELECT	10MF	20%	16V	
C1214	1-130-279-00	FILM	0.0018MF	5%	100V	
C1215	1-124-255-00	ELECT	1MF	20%	50V	
C1216	1-124-259-00	ELECT	4.7MF	20%	50V	
C1217	1-124-233-00	ELECT	10MF	20%	16V	
C1218	1-124-233-00	ELECT	10MF	20%	16V	
C1219	1-124-475-11	ELECT	470MF	20%	16V	
C1220	1-124-475-11	ELECT	470MF	20%	16V	
C1221	1-108-622-91	MYLAR	0.0047MF	10%	100V	
C1222	1-124-233-00	ELECT	10MF	20%	16V	
C1223	1-124-233-00	ELECT	10MF	20%	16V	
C1225	1-124-233-00	ELECT	10MF	20%	16V	
C1226	1-124-255-00	ELECT	1MF	20%	50V	
C1227	1-136-165-00	FILM	0.1MF	5%	50V	
C1228	1-108-587-00	MYLAR	0.022MF	5%	50V	
C1229	1-124-645-11	ELECT	10MF	20%	16V	
C1230	1-106-180-00	MYLAR	0.0022MF	5%	50V	
C1231	1-124-233-00	ELECT	10MF	20%	16V	
C1232	1-123-321-00	ELECT	220MF	20%	16V	
C1233	1-131-368-00	TANTALUM	3.3MF	10%	16V	
C1234	1-124-258-00	ELECT	3.3MF	20%	50V	
C1235	1-131-371-00	TANTALUM	10MF	10%	16V	
C1236	1-131-361-00	TANTALUM	2.2MF	10%	16V	
C1237	1-124-234-00	ELECT	22MF	20%	16V	

CONNECTOR

Ref.No.	Part No.	Description
CN101	1-537-030-11	TERMINAL, PUSH

DIODE

Ref.No.	Part No.	Description
D100	8-719-911-19	DIODE 1SS119
D101	8-719-911-19	DIODE 1SS119
D102	8-719-911-19	DIODE 1SS119
D103	8-719-911-19	DIODE 1SS119
D104	8-719-911-19	DIODE 1SS119
D105	8-719-000-12	DIODE MC931
D106	8-719-000-12	DIODE MC931
D107	8-719-000-12	DIODE MC931
D108	8-719-000-12	DIODE MC931
D1201	8-719-911-19	DIODE 1SS119
D1202	8-719-911-19	DIODE 1SS119

K1

Ref.No.	Part No.	Description				Remark
		IC				
IC101	8-759-340-52	IC HD14052BP				
IC102	8-759-340-52	IC HD14052BP				
IC1201	8-752-011-20	IC CX20112				
IC1202	8-752-030-26	IC CXA1011P				
		JACK				
J101	1-563-548-11	JACK BLOCK, PIN (BNC) 9P				
		COIL				
L1201	1-408-242-00	MICRO INDUCTOR 10MMH				
		TRANSISTOR				
Q100	8-729-178-54	TRANSISTOR 2SC2785				
Q101	8-729-178-54	TRANSISTOR 2SC2785				
Q102	8-729-178-54	TRANSISTOR 2SC2785				
Q103	8-729-178-54	TRANSISTOR 2SC2785				
Q104	8-729-178-54	TRANSISTOR 2SC2785				
Q105	8-729-117-54	TRANSISTOR 2SA1175				
Q106	8-729-117-54	TRANSISTOR 2SA1175				
Q107	8-729-117-54	TRANSISTOR 2SA1175				
Q108	8-729-117-54	TRANSISTOR 2SA1175				
Q109	8-729-178-54	TRANSISTOR 2SC2785				
Q1203	8-729-117-54	TRANSISTOR 2SA1175				
Q1204	8-729-178-54	TRANSISTOR 2SC2785				
		RESISTOR				
R101	1-249-425-11	CARBON	4.7K	5%	1/6W	
R102	1-249-425-11	CARBON	4.7K	5%	1/6W	
R103	1-249-425-11	CARBON	4.7K	5%	1/6W	
R104	1-249-425-11	CARBON	4.7K	5%	1/6W	
R107	1-247-887-00	CARBON	220K	5%	1/6W	
R108	1-247-887-00	CARBON	220K	5%	1/6W	
R109	1-247-887-00	CARBON	220K	5%	1/6W	
R110	1-249-417-11	CARBON	1K	5%	1/6W	
R111	1-249-417-11	CARBON	1K	5%	1/6W	
R112	1-249-417-11	CARBON	1K	5%	1/6W	
R113	1-247-713-11	CARBON	1K	5%	1/4W	
R114	1-247-859-00	CARBON	15K	5%	1/6W	
R115	1-247-875-00	CARBON	68K	5%	1/6W	
R116	1-247-859-00	CARBON	15K	5%	1/6W	
R117	1-249-417-11	CARBON	1K	5%	1/6W	
R118	1-247-817-00	CARBON	270	5%	1/6W	
R119	1-247-819-00	CARBON	330	5%	1/6W	
R120	1-249-432-11	CARBON	18K	5%	1/6W	
R121	1-247-887-00	CARBON	220K	5%	1/6W	
R122	1-247-887-00	CARBON	220K	5%	1/6W	
R123	1-247-887-00	CARBON	220K	5%	1/6W	
R124	1-249-417-11	CARBON	1K	5%	1/6W	
R125	1-249-417-11	CARBON	1K	5%	1/6W	
R126	1-249-417-11	CARBON	1K	5%	1/6W	
R127	1-247-713-11	CARBON	1K	5%	1/4W	
R131	1-247-804-00	CARBON	75	5%	1/6W	
R132	1-247-804-00	CARBON	75	5%	1/6W	
R134	1-247-859-00	CARBON	15K	5%	1/6W	
R135	1-247-859-00	CARBON	15K	5%	1/6W	
R136	1-247-859-00	CARBON	15K	5%	1/6W	
R137	1-247-859-00	CARBON	15K	5%	1/6W	
R138	1-247-851-00	CARBON	6.8K	5%	1/6W	
R139	1-247-851-00	CARBON	6.8K	5%	1/6W	
R140	1-247-851-00	CARBON	6.8K	5%	1/6W	
R141	1-247-851-00	CARBON	6.8K	5%	1/6W	
R142	1-249-417-11	CARBON	1K	5%	1/6W	
R143	1-249-417-11	CARBON	1K	5%	1/6W	
R144	1-249-417-11	CARBON	1K	5%	1/6W	
R145	1-249-417-11	CARBON	1K	5%	1/6W	
R146	1-249-435-11	CARBON	33K	5%	1/6W	
R147	1-249-435-11	CARBON	33K	5%	1/6W	
R148	1-249-435-11	CARBON	33K	5%	1/6W	
R149	1-249-435-11	CARBON	33K	5%	1/6W	
R150	1-249-420-11	CARBON	1.8K	5%	1/6W	
R151	1-247-895-00	CARBON	470K	5%	1/6W	
R152	1-249-414-11	CARBON	560	5%	1/6W	
R153	1-247-833-00	CARBON	1.2K	5%	1/6W	
R154	1-247-719-11	CARBON	3.3K	5%	1/4W	
R155	1-249-420-11	CARBON	1.8K	5%	1/6W	
R156	1-249-429-11	CARBON	10K	5%	1/6W	
R157	1-249-423-11	CARBON	3.3K	5%	1/6W	
R158	1-249-419-11	CARBON	1.5K	5%	1/6W	
R159	1-249-417-11	CARBON	1K	5%	1/6W	
R160	1-249-417-11	CARBON	1K	5%	1/6W	
R161	1-249-415-11	CARBON	680	5%	1/6W	
R162	1-247-804-00	CARBON	75	5%	1/6W	
R165	1-247-859-00	CARBON	15K	5%	1/6W	
R166	1-247-875-00	CARBON	68K	5%	1/6W	
R167	1-247-859-00	CARBON	15K	5%	1/6W	
R168	1-249-417-11	CARBON	1K	5%	1/6W	
R169	1-247-817-00	CARBON	270	5%	1/6W	
R170	1-247-819-00	CARBON	330	5%	1/6W	
R171	1-249-437-11	CARBON	47K	5%	1/6W	
R1202	1-249-425-11	CARBON	4.7K	5%	1/6W	
R1203	1-247-823-00	CARBON	470	5%	1/6W	
R1204	1-249-417-11	CARBON	1K	5%	1/6W	
R1206	1-247-133-00	CARBON	1.2K	5%	1/4W	
R1207	1-249-429-11	CARBON	10K	5%	1/6W	
R1208	1-249-425-11	CARBON	4.7K	5%	1/6W	
R1209	1-249-417-11	CARBON	1K	5%	1/6W	
R1210	1-249-417-11	CARBON	1K	5%	1/6W	
R1211	1-249-441-11	CARBON	100K	5%	1/6W	
R1212	1-215-470-00	METAL	110K	1%	1/6W	
R1213	1-215-470-00	METAL	110K	1%	1/6W	
R1214	1-247-819-00	CARBON	330	5%	1/6W	
R1215	1-249-432-11	CARBON	18K	5%	1/6W	
R1217	1-215-430-00	METAL	2.4K	1%	1/6W	
R1218	1-247-903-00	CARBON	1M	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R1219	1-247-853-00	CARBON	8.2K	5%	1/6W	
R1220	1-249-414-11	CARBON	560	5%	1/6W	
R1221	1-249-423-11	CARBON	3.3K	5%	1/6W	
R1222	1-249-429-11	CARBON	10K	5%	1/6W	
R1223	1-247-819-00	CARBON	330	5%	1/6W	
R1224	1-247-849-00	CARBON	5.6K	5%	1/6W	
R1225	1-247-819-00	CARBON	330	5%	1/6W	
R1226	1-247-839-00	CARBON	2.2K	5%	1/6W	
R1227	1-249-435-11	CARBON	33K	5%	1/6W	
R1228	1-215-487-00	METAL	560K	1%	1/6W	
R1229	1-215-449-00	METAL	15K	1%	1/6W	
R1230	1-247-839-00	CARBON	2.2K	5%	1/6W	

VARIABLE RESISTOR

Ref.No.	Part No.	Description
RV504	1-228-848-00	RES, VAR, CARBON 10K
RV1201	1-228-728-00	RES, ADJ, CERAMIC CARBON 100K
RV1202	1-228-727-00	RES, ADJ, CERAMIC CARBON 47K
RV1203	1-228-731-00	RES, ADJ, CERAMIC CARBON 470K
RV1204	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV1205	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV1206	1-228-723-00	RES, ADJ, CERAMIC CARBON 4.7K
RV1207	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV1208	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV1209	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K
RV1210	1-228-724-00	RES, ADJ, CERAMIC CARBON 10K

****

MISCELLANEOUS
****

Ref.No.	Part No.	Description
	1-205-899-11	RES, CEMENT WIREWOUND 3.9
	⚠1-451-255-12	DEFLECTION YOKE (SY-164)
	1-452-032-00	MAGNET, DISK; 10MM ø
	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM ø
	1-452-146-21	MAGNET, BMC
	1-452-391-11	NECK ASSY, CRT (NA305)
	1-506-409-00	ADAPTOR, CONVERSION
	⚠1-534-817-71	CORD, POWER
	⚠1-554-966-12	SWITCH, PUSH (AC POWER)(1 KEY)
	*1-557-056-00	CABLE, P-P
	⚠1-563-204-13	SOCKET, ANTENNA (PAL/SECAM)
	1-566-316-11	CONNECTOR, CONVERSION
L901	⚠1-426-289-11	COIL, DEMAGNETIZATION
RV901	⚠1-237-280-11	RESISTOR ASSY, HIGH-VOLTAGE
RV902	⚠1-230-212-11	RESISTOR ASSY, HIGH-VOLTAGE
T851	⚠1-439-332-52	TRANSFORMER ASSY, FLYBACK
V901	⚠8-736-652-05	CRT (A64JKJ10X)

ACCESSORIES AND PACKING MATERIALS
****

Part No.	Description	Remark
A-1470-745-A	COMMANDER ASSY (RM-646)	
1-417-094-00	MIXER, U/V (PAL)	
1-506-409-00	ADAPTOR, CONVERSION	
1-566-316-11	CONNECTOR, CONVERSION	
*4-374-402-01	SHEET, CORRUGATED FIBERBOARD	
*4-380-432-01	BAG, PROTECTION	
*4-382-117-01	CUSHION (UPPER) (ASSY)	
*4-382-118-01	CUSHION (LOWER) (ASSY)	
4-382-131-01	INDIVIDUAL CARTON	
4-382-132-01	CUSION (FRONT)	
4-482-282-51	MANUAL, INSTRUCTION	
4-490-241-41	MANUAL, INSTANT INFORMATION	

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

86LG0506-1
Printed in Japan

© 1986

9-963-724-01

Sony Corporation

KV-27VX1P
RM-646/SS-X4(PX)

SONY®
SERVICE MANUAL

PX Model
Chassis No. SCC-A57A-A
March, 1987
No. 1

CORRECTION

Correct the service manual as shown below.
File this correction with the service manual.

☛ : Corrected Portion

Page 5: 2-1. SAFETY RELATED ADJUSTMENTS

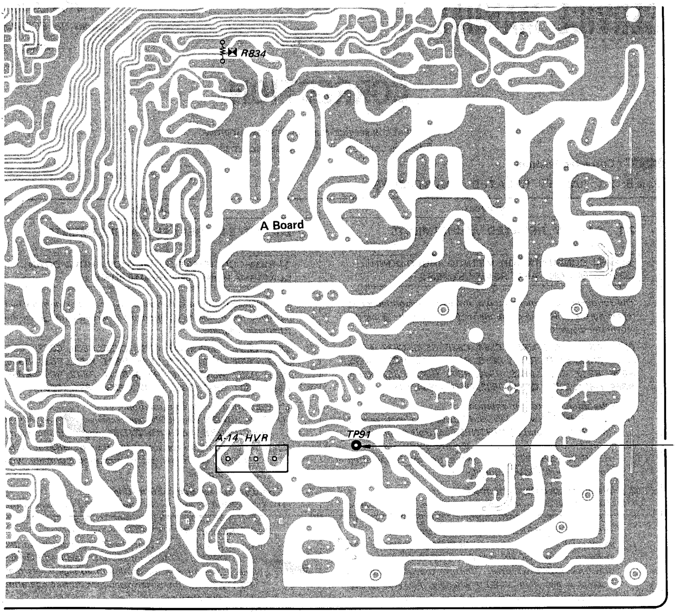
Incorrect	Correct
2-1. SAFETY RELATED ADJUSTMENTS ⊠ R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT *The following adjustment should always be performed when replacing the following components (marked with ◪ on the schematic diagram).* *C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R506, R507, R818, R831, R832, R834, R835, R836, R837, R838, R839, R840, R841, R842, R857, R858, R859, D831, D832, Q831, Q832, Q833, Q834, IC501.* *1. Preparation before confirmation.* *(1) Turn POWER switch ON, and receive dot signals and set the PICTURE and BRIGHTNESS controls to minimum.* *(2) Confirm that the voltage of the protector terminal of H.V.R is 15.50 ±2.50 V dc when the set is operating normally with 120VAC supply.* *2. Hold-down operation confirmation.* *(1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 ±30 μA with PICTURE and BRIGHTNESS etc. controls.* *(2) Apply DC voltage of over 14.80 V gradually to the protector terminal of H.V.R via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.* **Note:** *When the hold-down circuit starts operating switch OFF the POWER of the set immediately.* *(3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 ±50 μA with PICTURE and BRIGHTNESS etc. controls.* *(4) Apply DC voltage of over 16.00 V gradually to the protector terminal of H.V.R via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.* **Note:** *When the hold-down circuit start operating switch OFF the POWER of the set immediately.*	2-1. SAFETY RELATED ADJUSTMENTS ⊠ R834 CONFIRMATION METHOD (HOLD-DOWN CONFIRMATION) AND READJUSTMENT *The following adjustment should always be performed when replacing the following components (marked with ◪ on the schematic diagram).* *C825, C831, C832, C833, C834, C835, C836, C837, C856, C857, C858, R506, R507, R818, R831, R832, R834, R835, R836, R837, R838, R839, R840, R841, R842, R857, R858, R859, D831, D832, Q831, Q832, Q833, Q834, IC501.* *1. Preparation before confirmation.* *(1) Turn POWER switch ON, and receive d[illegible]nals and set the PICTURE and BRIGHTNESS con[illegible] to minimum.* *(2) Confirm that the voltage of the Base of Q831 is 15.50 ±2.50 V dc when the set is operating normally with 120VAC supply.* *2. Hold-down operation confirmation.* *(1) Turn POWER switch ON, and receive entirely white signals and adjust IABL current to 1650 ±30 μA with PICTURE and BRIGHTNESS etc. controls.* ☛ *(2) Apply DC voltage of over 14.80 V gradually to the Base of Q831 via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 14.80 V whereby the raster disappears during operation of hold-down circuit.* **Note:** *When the hold-down circuit starts operating switch OFF the POWER of the set immediately.* *(3) Turn POWER switch ON, and receive dot signals and adjust IABL current to 220 ±50 μA with PICTURE and BRIGHTNESS etc. controls.* ☛ *(4) Apply DC voltage of over 16.00 V gradually to the Base of Q831 via IT40 from the DC stavilized POWER source. Confirm that the minimum voltage is less than 16.00 V whereby the raster disappears during operation of hold-down circuit.* **Note:** *When the hold-down circuit start operating switch OFF the POWER of the set immediately.*

MICROFILM

CTV

Page 5, 6: 2-1. SAFETY RELATED ADJUSTMENTS

Incorrect



Page 7:

Incorrect	Correct
CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR) *The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).* * *This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit re-adjustment for replacement of parts marked* ◪. 1. *When the set is operation normally with 120VAC supply, confirm that the voltage of the protector terminal of H.V.R is 15.50 ±2.50 V dc.*	CONFIRMATION WHEN REPLACING H.V.R (HIGH VOLTAGE REGISTOR) *The following adjustments should always be performed with reference to whether an X-ray radiation control circuit is connected or not, when replacing H.V.R (High Voltage Registor).* * *This check is to be performed when H.V.R only is replaced, and has no relation to the hold-down circuit re-adjustment for replacement of parts marked* ◪. 1. *When the set is operation normally with 120VAC supply, confirm that the voltage of the Base of Q831 is 15.50 ±2.50 V dc.*

English
87CG0507-1
Printed in Japan

© 1987. 3

Sony Corporation
TV Group

SONY
TRINITRON® COLOR TV
KV-27VX1P/RM-646/SS-X4(PX)

PX Model

Chassis No. SCC-A57A-A

VX CHASSIS

1

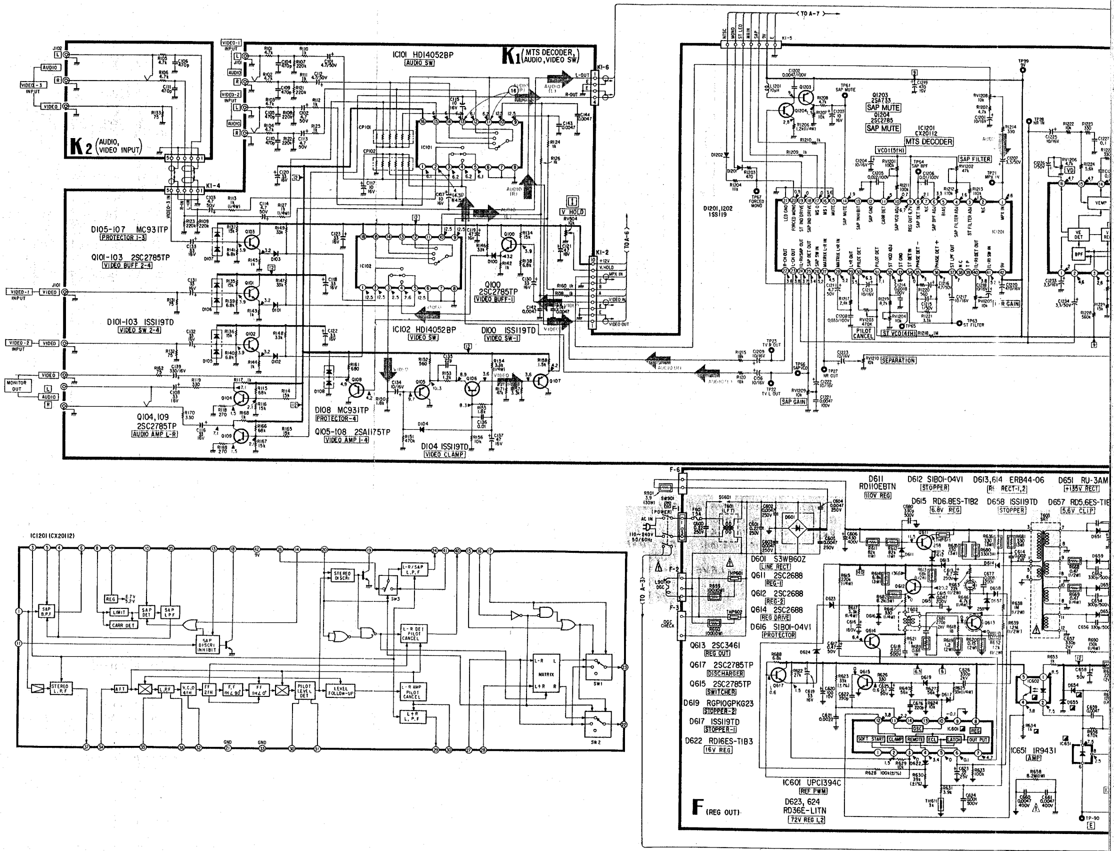
SCHEMATIC DIAGRAM

SAFETY-RELATED COMPONENT WARNING !!

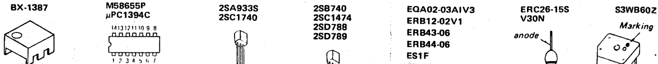
COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

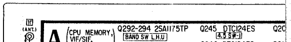
- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6 W unless otherwise noted. k: 1000 Ω, M: 1000 kΩ
- ⊟ : nonflammable resistor.
- △ : internal component.
- ▭ : panel designation.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- The components identified by ⧓ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Select the resistance value according to SAFETY RELATED ADJUSTMENT of the service manual.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment until the specified value is achieved.
- Refer to the service manual for the adjustment of components identified by ⧓ .
- All voltages are in V.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken with a 10 MΩ digital multimeter.
- ▭ : adjustment for repair.
- Readings are taken with a color-bar signal input.
- Voltage variations may be noted due to normal production tolerances.
- no mark : with PAL color-bar signal received.
  (( )): with NTSC color-bar signal received.
- * : Can not be measured for voltage variations.
- ──── : B+ bus.
- – – – : B– bus.

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.



- **Semiconductor Lead Layouts**

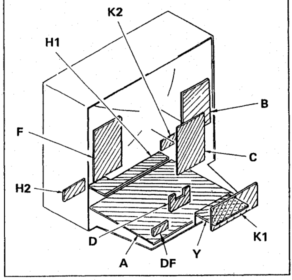




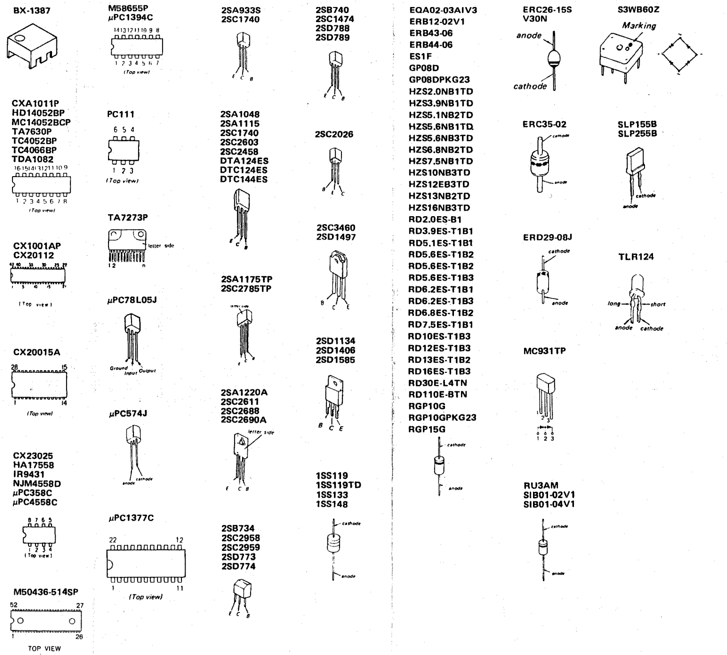
K

L

CIRCUIT BOARDS LOCATION



• Semiconductor Lead Layouts



BX-1387

M58655P
μPC1394C

2SA933S
2SC1740

2SB740
2SC1474
2SD788
2SD789

CXA1011P
HD14052BP
MC14052BCP
TA7630P
TC4052BP
TC4066BP
TDA1082

PC111

2SA1048
2SA1115
2SC1740
2SC2603
2SC2458
DTA124ES
DTC124ES
DTC144ES

2SC2026

TA7273P

CX1001AP
CX20112

2SC3460
2SD1497

2SA1175TP
2SC2785TP

μPC78L05J

CX20015A

2SD1134
2SD1406
2SD1585

2SA1220A
2SC2611
2SC2688
2SC2690A

μPC574J

CX23025
HA17558
IR9431
NJM4558D
μPC358C
μPC4558C

1SS119
1SS119TD
1SS133
1SS148

μPC1377C

2SB734
2SC2958
2SC2959
2SD773
2SD774

M50436-514SP

EQA02-03AIV3
ERB12-02V1
ERB43-06
ERB44-06
ES1F
GP08D
GP08DPKG23
HZS2.0NB1TD
HZS3.9NB1TD
HZS5.1NB2TD
HZS5.6NB1TD
HZS5.6NB3TD
HZS6.8NB2TD
HZS7.5NB1TD
HZS10NB3TD
HZS12EB3TD
HZS13NB2TD
HZS16NB3TD
RD2.0ES-B1
RD3.9ES-T1B1
RD5.1ES-T1B1
RD5.6ES-T1B2
RD5.6ES-T1B2
RD5.6ES-T1B3
RD6.2ES-T1B1
RD6.2ES-T1B3
RD6.8ES-T1B2
RD7.5ES-T1B1
RD10ES-T1B3
RD12ES-T1B3
RD13ES-T1B2
RD16ES-T1B3
RD30E-L4TN
RD110E-BTN
RGP10G
RGP10GPKG23
RGP15G

ERC26-15S
V30N

S3WB60Z

ERC35-02

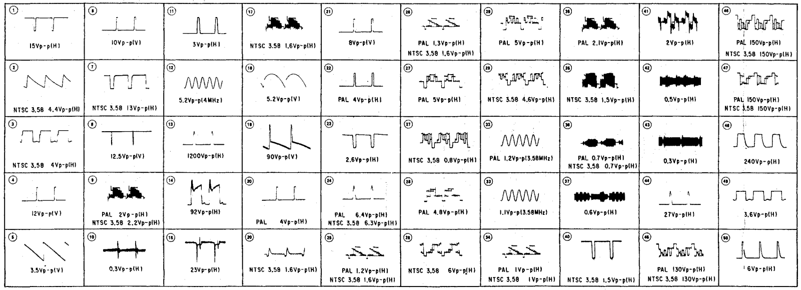
SLP155B
SLP255B

ERD29-08J

TLR124

MC931TP

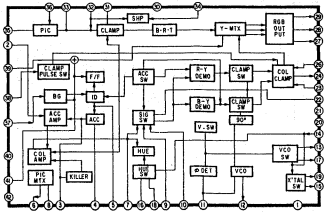
RU3AM
SIB01-02V1
SIB01-04V1

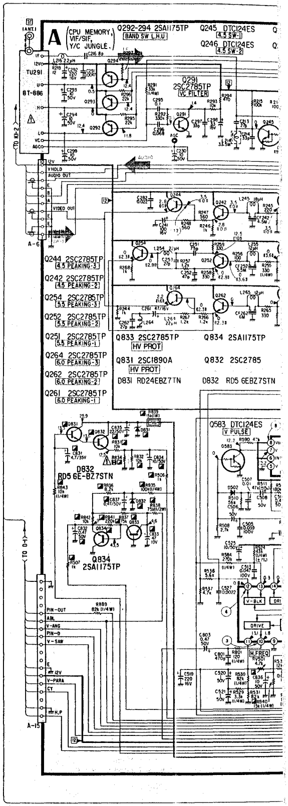


① 15Vp-p(H)	⑥ 10Vp-p(V)	⑪ 3Vp-p(H)	⑰ NTSC 3.58 1.6Vp-p(H)	㉑ 8Vp-p(V)	㉖ PAL 1.3Vp-p(H) NTSC 3.58 1.6Vp-p(H)	㉙ PAL 5Vp-p(H)	㉟ PAL 2.1Vp-p(H)	㊶ 2Vp-p(H)	㊻ PAL 150Vp-p(H) NTSC 3.58 150Vp-p(H)
② NTSC 3.58 4.4Vp-p(H)	⑦ NTSC 3.58 13Vp-p(H)	⑫ 5.2Vp-p(4MHz)	⑱ 5.2Vp-p(V)	㉒ PAL 4Vp-p(H)	㉗ PAL 5Vp-p(H)	㉙ NTSC 3.58 4.6Vp-p(H)	㉟ NTSC 3.58 1.5Vp-p(H)	㊷ 0.5Vp-p(H)	㊼ PAL 150Vp-p(H) NTSC 3.58 150Vp-p(H)
③ NTSC 3.58 4Vp-p(H)	⑧ 12.5Vp-p(V)	⑬ 1200Vp-p(H)	⑲ 90Vp-p(V)	㉓ 2.6Vp-p(H)	㉗ NTSC 3.58 0.8Vp-p(H)	㉜ PAL 1.2Vp-p(3.58MHz)	㊱ PAL 0.7Vp-p(H) NTSC 3.58 0.7Vp-p(H)	㊸ 0.3Vp-p(H)	㊽ 240Vp-p(H)
④ 12Vp-p(V)	⑨ PAL 2Vp-p(H) NTSC 3.58 2.2Vp-p(H)	⑭ 92Vp-p(H)	⑳ PAL 4Vp-p(H)	㉔ PAL 6.4Vp-p(H) NTSC 3.58 6.3Vp-p(H)	㉘ PAL 4.8Vp-p(H)	㉝ 1.1Vp-p(3.58MHz)	㊲ 0.6Vp-p(H)	㊹ 27Vp-p(H)	㊾ 3.6Vp-p(H)
⑤ 3.5Vp-p(V)	⑩ 0.3Vp-p(H)	⑯ 23Vp-p(H)	⑳ NTSC 3.58 1.6Vp-p(H)	㉕ PAL 1.2Vp-p(H) NTSC 3.58 1.6Vp-p(H)	㉘ NTSC 3.58 6Vp-p(H)	㉞ PAL 1Vp-p(H) NTSC 3.58 1Vp-p(H)	㊵ NTSC 3.58 1.5Vp-p(H)	㊺ PAL 130Vp-p(H) NTSC 3.58 130Vp-p(H)	㊿ 6Vp-p(H)

B BOARD

IC300 (CXA1001AP)

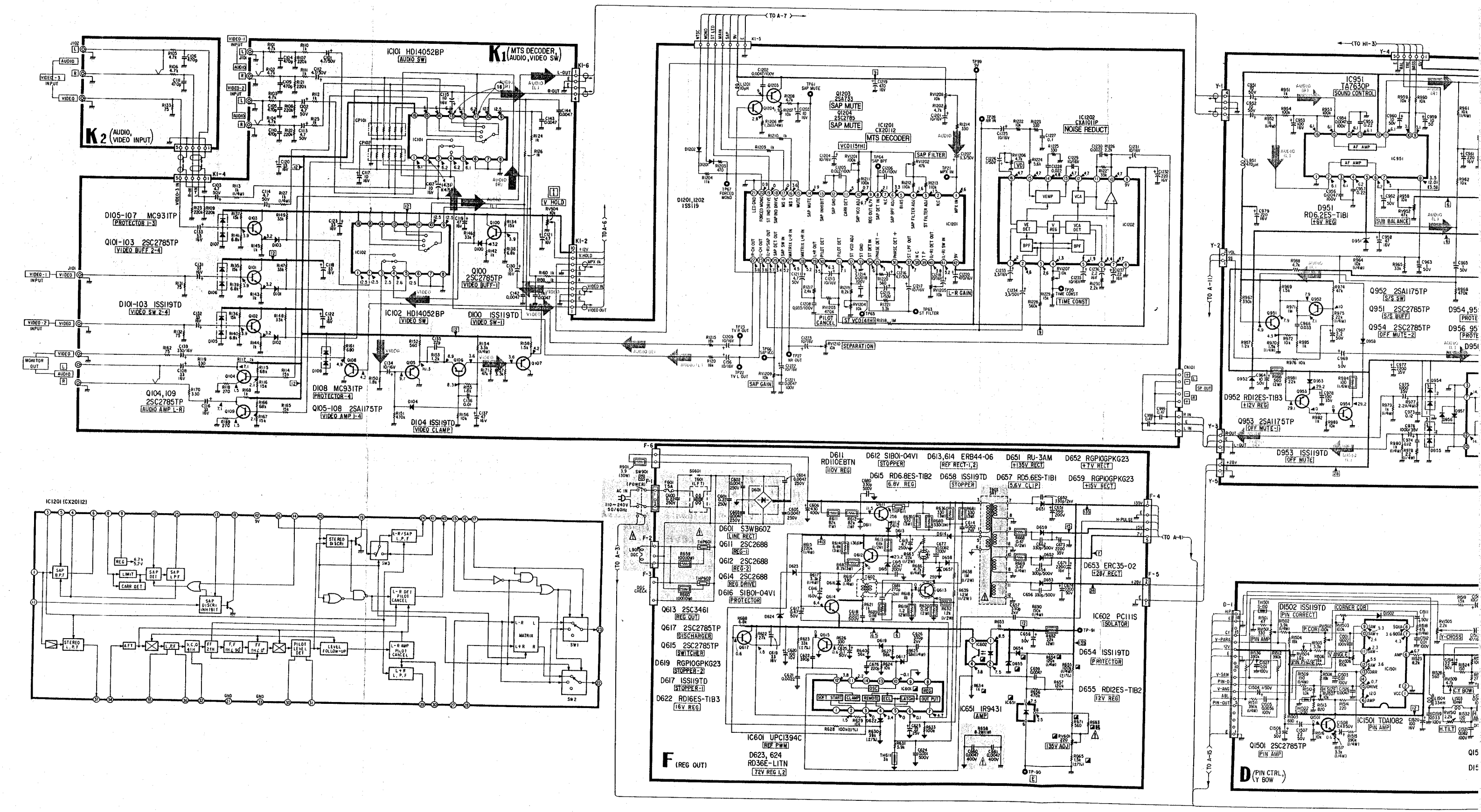




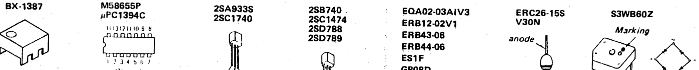
1

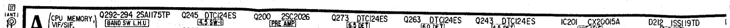
2

SCHEMATIC DIAGRAM

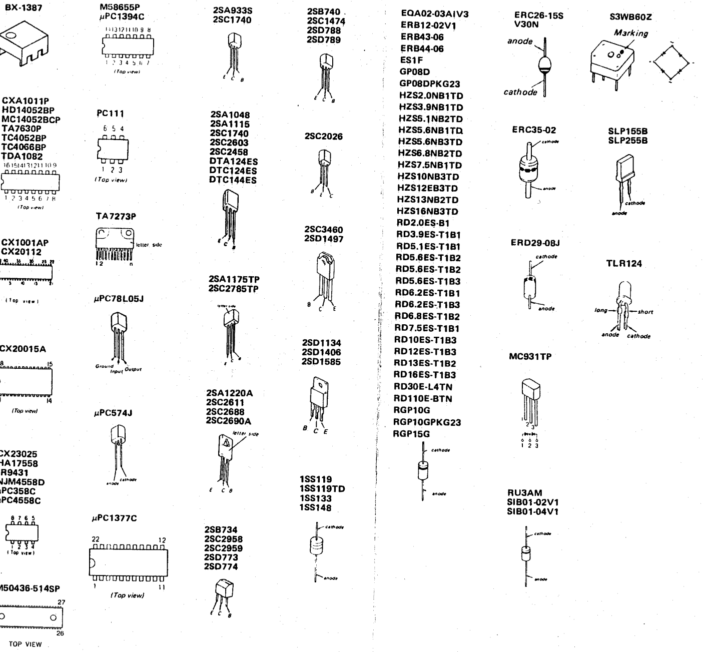


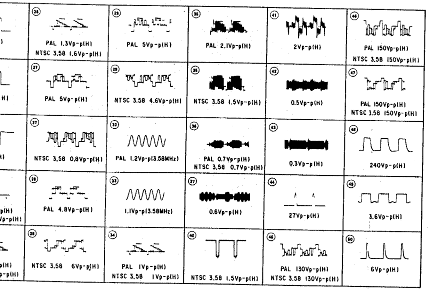
- Semiconductor Lead Layouts





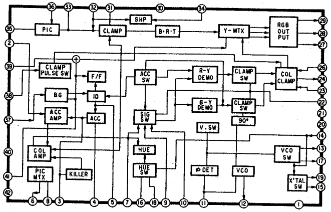
• Semiconductor Lead Layouts

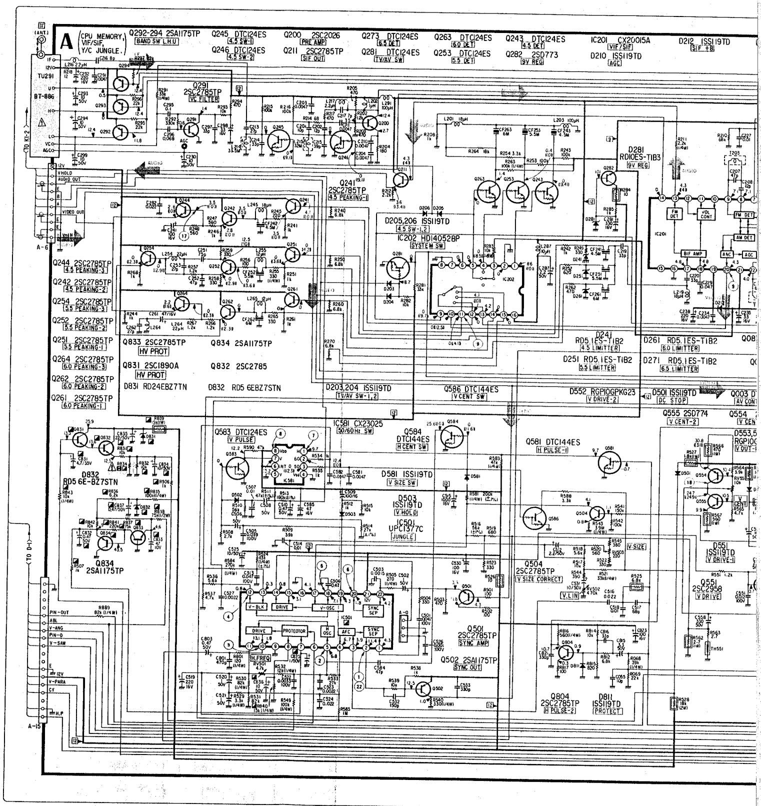




B BOARD

IC300 (CXA1001AP)



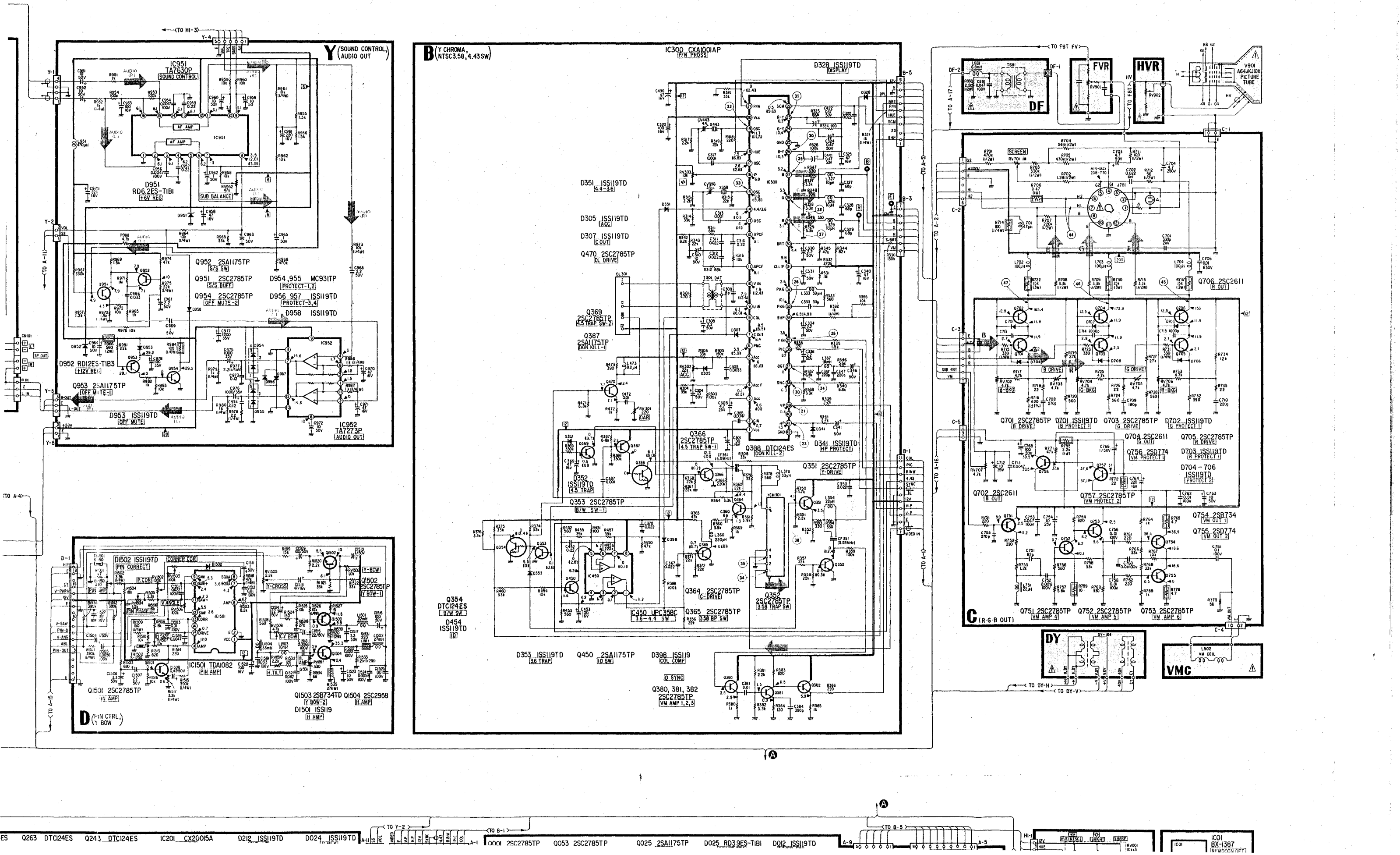


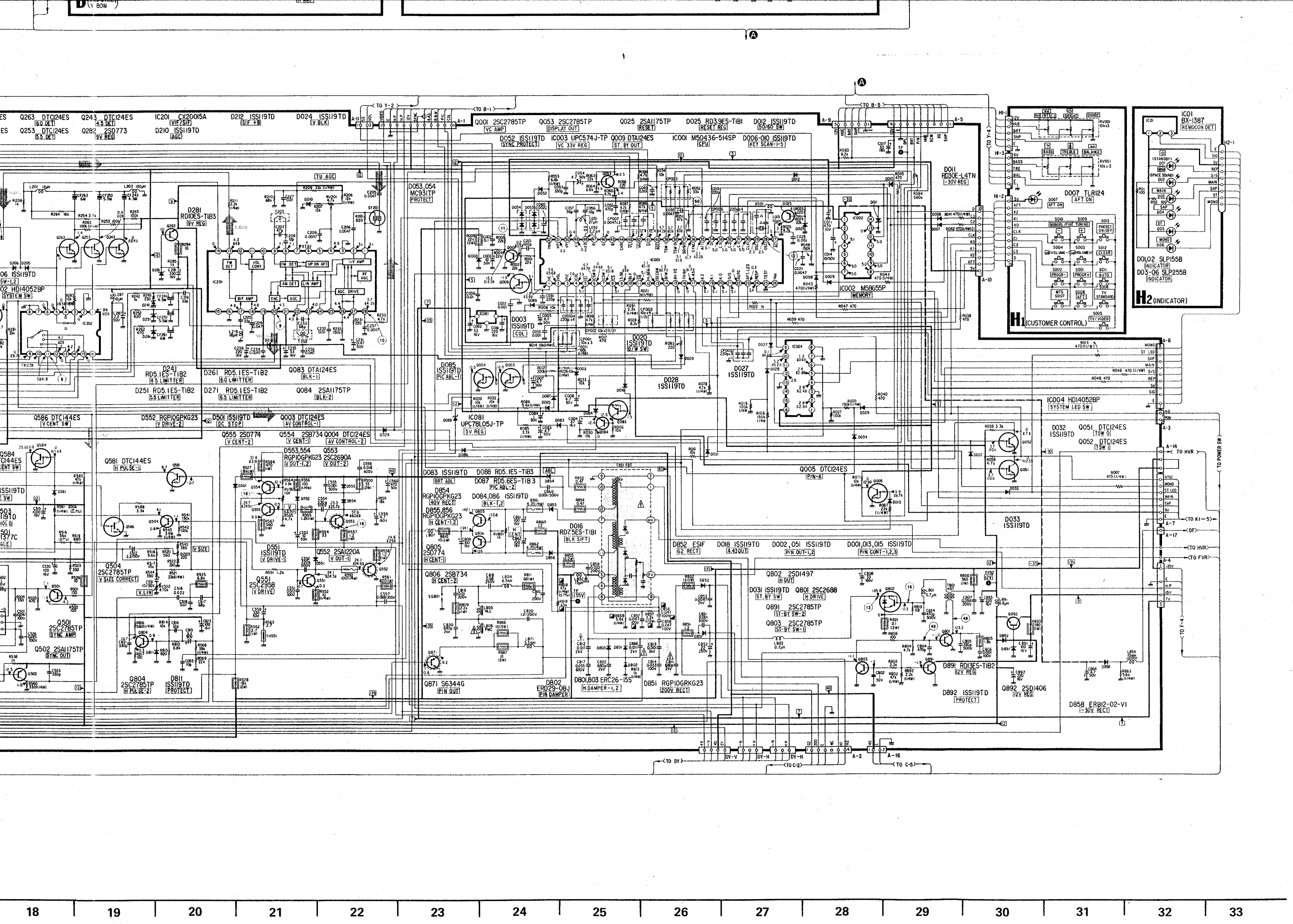
5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21

2

(KV-27VX1P/RM-646/SS-X4(PX))

3



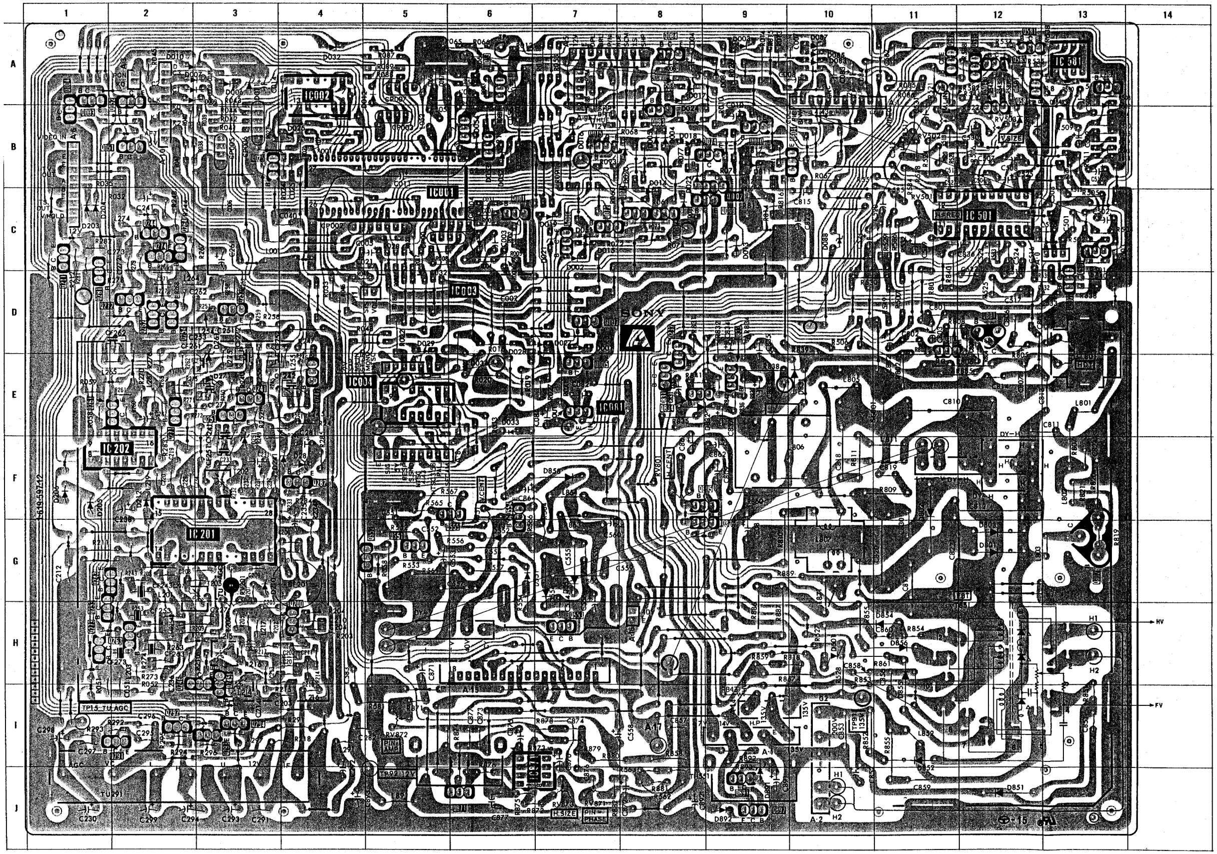

Q263 DTC124ES
60 DET
Q253 DTC124ES
5.5 DET
Q243 DTC124ES
4.5 DET
Q282 2SD773
9V REG
IC201 CX20015A
VIF/SIF
D210 1SS119TD
AGC
D212 1SS119TD
SIF +B
D024 1SS119TD
V BLK
TO Y-2
TO B-1
TO B-5
A-1
A-9
A-5
Q001 2SC2785TP
VC AMP
Q053 2SC2785TP
DISPLAY OUT
Q025 2SA1175TP
RESET
D025 RD3.9ES-TIB1
RESET REG
D012 1SS119TD
50/60 SW
D052 1SS119TD
SYNC PROTECT
IC003 UPC574J-TP
VC 33V REG
Q009 DTA124ES
ST BY OUT
IC001 M50436-514SP
CPU
D006-010 1SS119TD
KEY SCAN-1-5
D011 RD30E-L4TN
-30V REG
D007 TLR124
AFT ON
IC002 M58655P
MEMORY
D053,054 MC931TP
PROTECT
TU AGC
D281 RD10ES-TIB3
9V REG
FM DET
VOL CONT
I/F AMP
RF AGC
UP ON SFT
AM DET
LIM AMP
AGC DRIVE
BIF AMP
D206 1SS119TD
IC202 HD14052BP
SYSTEM SW
D241 RD5.1ES-TIB2
4.5 LIMITER
D251 RD5.1ES-TIB2
5.5 LIMITER
D261 RD5.1ES-TIB2
60 LIMITER
D271 RD5.1ES-TIB2
6.5 LIMITER
Q083 DTA124ES
BLK-1
Q084 2SA1175TP
BLK-2
Q586 DTC144ES
V CENT SW
D552 RGP10GPKG23
V DRIVE-2
D501 1SS119TD
DC STOP
Q003 DTC124ES
AV CONTROL-1
Q555 2SD774
V CENT-2
Q554 2SB734
V CENT-1
Q004 DTC124ES
AV CONTROL-2
Q584 DTC144ES
V CENT SW
Q581 DTC144ES
H PULSE-1
D553,554 RGP10GPKG23
V OUT-1,2
Q553 2SC2690A
V OUT-2
Q504 2SC2785TP
V SIZE CORRECT
V SIZE
V LIN
D551 1SS119TD
V DRIVE-1
Q552 2SA1220A
V OUT-1
Q551 2SC2958
V DRIVE
Q501 2SC2785TP
SYNC AMP
Q502 2SA1175TP
SYNC OUT
Q804 2SC2785TP
H PULSE-2
D811 1SS119TD
PROTECT
D085 1SS119TD
PIC ABL-1
IC081 UPC78L05J-TP
5V REG
D020 1SS119TD
B/W SW
D028 1SS119TD
D027 1SS119TD
IC004 HD14052BP
SYSTEM LED SW
D032 1SS119TD
Q051 DTC124ES
TSW 0
Q052 DTC124ES
TSW 1
Q005 DTC124ES
P/N-A
D033 1SS119TD
D083 1SS119TD
BRT ABL
D088 RD5.1ES-TIB3
ABL
D087 RD5.6ES-TIB3
PIC ABL-2
D854 RGP10GPKG23
40V RECT
D084,086 1SS119TD
BLK-1,2
D855,856 RGP10GPKG23
H CENT-1,2
Q805 2SD774
H CENT-1
D016 RD7.5ES-TIB1
BLK SIFT
T851 FBT
D852 ESIF
G2 RECT
D018 1SS119TD
4.43 OUT
D002,051 1SS119TD
P/N OUT-1,2
D001,013,015 1SS119TD
P/N CONT-1,2,3
Q806 2SB734
H CENT-2
Q802 2SD1497
H OUT
D031 1SS119TD
ST BY SW
Q801 2SC2688
H DRIVE
Q891 2SC2785TP
ST-BY SW-2
Q803 2SC2785TP
ST-BY SW-1
Q871 S6344G
PIN OUT
D802 ERD29-08J
PIN DAMPER
D801,803 ERC26-15S
H DAMPER-1,2
D851 RGP10GRKG23
200V RECT
D891 RD13ES-TIB2
12V REG
D892 1SS119TD
PROTECT
Q892 2SD1406
12V REG
D858 ERB12-02-V1
-30V RECT
H1 (CUSTOMER CONTROL)
HUE (NTSC)
BRIGHT
SHARP
BASS
TREBLE
BALANCE
RV001
RV951
AFT ON
S010 MANUAL/FINE TUNING
S009
S013 PRESET ON/OFF
S004 VOLUME-
S003 VOLUME+
S012 CLEAR
S002 PROGR-
S001 PROGR+
S011 AUTO
MTS S007
S008 AFT
S006 TV STANDARD
S005 TV/VIDEO
H2 (INDICATOR)
IC01 BX-1387
REMOCON DET
D01,02 SLP155B
INDICATOR
D03-06 SLP2558
INDICATOR
STANDBY
SPACE SOUND
MAIN
SAP
ST
MONO
TO Y-4
TO HVR
TO POWER SW
TO K1-5
DF
TO HVR
TO FVR
TO F-4
TO DY
DY-V
DY-H
TO C-2
TO C-5
A-2
A-16
A-8
A-3
A-14
A-7
A-17
A-4
A-10
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33

PRINTED WIRING BOARDS

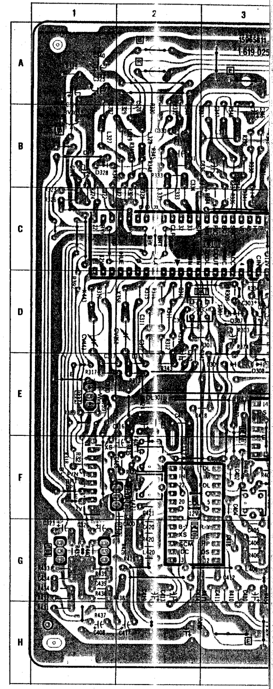
4 Sony 4526

Note: All mounting diagrams are viewed from conductor side.

A [CPU MEMORY, VIF/SIF, Y/C JUNGLE]



B [Y CHROMA, NTSC 3.58, 4.43 SW]



TU AGC **RV201 = G-3**

1. *Tune in an off-air signal.*
2. *Adjust RV201 so that snow-noise and cross-modulation just disappear from the picture.*

H. FREQ **RV501 = C-11**

1. *Receive NTSC signal.*
2. *Connect an electrolytic capacitor (47µF/16V) between Pin ① and Pin ⑨ of IC501.*
3. *Connect frequency counter across pin ⑩ of IC501 and ground.*
4. *Adjust RV501 for 15.734kHz ±50Hz on the frequency*

V. LIN **RV502 = B-11**

V. SIZE **RV503 = B-12**

V. CENT **RV551 = G-6**

ACC ADJUSTMENT **RV302 = B-3**

1. *Turn in a strong off-air signal*

AP

TU AGC RV201 = G-3

1. *Tune in an off-air signal.*
2. *Adjust RV201 so that snow-noise and cross-modulation just disappear from the picture.*

H. FREQ RV501 = C-11

1. *Receive NTSC signal.*
2. *Connect an electrolytic capacitor (47µF/16V) between Pin ① and Pin ⑨ of IC501.*
3. *Connect frequency counter across pin ⑩ of IC501 and ground.*
4. *Adjust RV501 for 15.734kHz±50Hz on the frequency counter.*

V. LIN RV502 = B-11

V. SIZE RV503 = B-12

V. CENT RV551 = G-6

1. *Tune in an off-air signal.*
2. *Adjust RV503, RV502 and RV551 for a best vertical size picture.*

H. CENT RV801 = F-8

Adjust RV801 for a best verial size picture.

A

CONNECTOR	
A0	C-13
A1	B-10
A2	J-10
A3	A-2
A4	I-9
A5	E-7
A6	B-1
A7	A-5
A8	F-5
A9	B-7
A10	B-2
A11	D-4
A14	I-9
A15	A-6
A16	H-8
A17	I-8

CAPACITOR	
C001	C-6
C002	D-6
C003	C-6
C004	A-8
C005	C-5
C006	C-3
C007	A-9
C008	A-9
C010	B-9
C011	B-5
C014	A-3
C017	A-6
C019	A-3
C021	D-4
C025	B-4
C051	I-2
C052	B-6
C053	A-5
C054	A-6
C055	B-6
C056	A-5
C057	A-5
C060	A-6
C081	E-6
C082	E-7
C083	A-10
C084	A-10
C201	H-3
C202	H-3
C203	I-3
C204	H-4
C205	H-3
C206	G-3
C207	G-2
C208	G-2
C209	G-3
C210	H-4
C211	H-4
C212	G-1
C213	H-3
C214	I-3
C215	H-3
C216	I-4
C217	H-3
C219	F-2
C220	F-2
C227	H-3
C229	F-2
C230	J-1
C231	F-3
C232	F-3
C233	F-3
C234	F-2
C235	G-4
C236	I-2
C237	F-3
C238	F-2
C241	C-2
C242	C-2
C251	D-3
C252	D-3
C253	D-2
C261	C-3
C262	D-2
C271	D-2
C272	D-2
C273	C-1
C281	F-4
C282	I-4
C287	E-2
C291	J-3
C292	J-4
C293	J-3
C294	J-2
C295	I-2
C296	I-2
C297	I-1
C298	I-1
C299	J-2
C501	C-13
C502	C-13
C503	C-13
C504	C-12
C505	B-13
C506	B-13
C507	B-12
C508	B-12
C509	B-13
C510	B-13
C512	B-11
C513	B-11
C515	B-12
C516	C-12
C517	D-12
C518	D-12
C519	C-11
C520	C-11
C521	C-10
C522	D-12
C523	C-12
C524	C-12
C525	B-12
C526	C-12
C527	C-11
C530	B-12
C531	B-11
C532	D-12
C533	D-12
C551	G-5
C552	G-5
C553	G-5
C554	H-7
C555	G-7
C556	G-7
C557	G-5
C558	I-7
C559	G-7
C560	G-7
C581	A-12
C582	A-11
C583	H-4
C584	B-13
C585	A-13
C801	D-11
C802	D-11
C803	D-11
C804	E-12
C805	D-12
C806	D-12
C807	E-12
C808	G-9
C809	F-9
C810	E-11
C811	F-12
C812	F-12
C813	E-12
C814	E-12
C815	B-10
C816	C-9
C817	G-11
C818	F-10
C819	F-11
C820	G-10
C822	G-11
C823	C-10
C824	F-13
C829	J-4
C830	G-11
C831	E-8
C832	D-11
C833	E-9
C834	D-9
C835	E-9
C836	C-11
C837	E-9
C851	I-13
C852	J-10
C853	I-10
C856	I-11
C857	I-8
C859	J-11
C860	H-11
C861	F-8
C862	F-9
C864	F-6
C870	I-7
C871	H-5
C872	J-8
C873	I-6
C874	I-7
C875	I-6
C876	J-7
C891	J-9
C892	J-8
C893	J-4

FILTER	
CF241	F-3
CF242	E-4
CF243	G-2
CF251	F-3
CF252	E-3
CF253	H-2
CF261	E-2
CF262	D-1
CF263	H-2
CF271	E-3
CF272	E-3
CF273	H-2

DIODE	
D001	E-7
D002	C-7
D003	A-9
D004	B-8
D005	B-8
D006	A-3
D007	A-2
D008	A-2
D009	B-2
D010	A-2
D011	A-3
D012	A-5
D013	C-9
D014	C-8
D015	C-7
D016	B-7
D017	A-8
D018	B-8
D019	C-7
D020	B-8
D021	C-7
D022	B-8
D024	B-8
D025	B-4
D027	D-7
D028	E-7
D029	E-7
D031	C-8
D032	A-4
D051	C-7
D052	B-6
D053	B-6
D054	B-6
D083	A-10
D084	A-9
D085	A-10
D086	A-8
D087	A-10
D088	C-10
D203	C-1
D204	C-1
D205	F-1
D206	F-1
D210	G-3
D212	F-2
D241	F-4
D251	F-3
D261	E-3
D271	E-3
D281	F-4
D501	H-10
D502	B-13
D503	B-13
D551	G-6
D552	G-6
D553	G-7
D554	G-7
D581	B-12
D801	G-12
D802	G-11
D803	G-12
D811	B-9
D831	E-9
D832	E-8
D851	J-12
D852	J-11
D854	H-11
D855	H-11
D856	H-11
D858	F-7
D891	J-9
D892	J-9

IC	
IC001	C-5
IC002	A-4
IC003	C-5
IC004	E-5
IC081	F-7
IC201	G-2
IC202	F-1
IC501	C-12
IC581	A-13
IC871	J-6

COIL	
L001	C-3
L051	B-5
L052	B-5
L201	H-2
L202	H-3
L203	H-2
L214	I-3
L215	H-3
L216	I-4
L217	H-3
L219	F-2
L244	B-2
L245	E-4
L254	D-3
L255	E-4
L264	D-2
L265	E-1
L274	C-2
L275	E-3
L287	E-2
L291	I-4
L801	E-13
L803	G-12
L804	F-11
L805	E-10
L806	F-9
L807	G-10
L811	F-11
L852	I-11
L854	F-7
L871	H-10
L891	J-5

TRANSISTOR	
Q001	C-6
Q002	C-9
Q003	B-1
Q004	B-1
Q005	E-7
Q006	C-7
Q007	D-7
Q008	C-8
Q009	C-9
Q019	B-9
Q025	B-3
Q051	B-2
Q052	B-2
Q053	A-6
Q071	C-8
Q072	C-7
Q074	B-8
Q075	B-7
Q083	B-8
Q084	A-8
Q200	H-4
Q211	C-1
Q241	E-3
Q242	E-4
Q243	G-1
Q244	C-2
Q245	I-3
Q246	I-2
Q251	E-3
Q252	D-3
Q253	H-1
Q254	D-2
Q261	E-1
Q262	D-2
Q263	H-2
Q264	C-2
Q271	E-2
Q272	D-2
Q273	H-1
Q274	C-2
Q281	D-4
Q282	F-4
Q291	I-1
Q292	I-2
Q293	I-3
Q294	I-3
Q501	C-13
Q502	D-13
Q504	B-12
Q551	G-5
Q552	G-4
Q553	H-7
Q554	G-6
Q555	G-5
Q581	A-12
Q582	A-11
Q583	A-13
Q584	A-12
Q585	A-12
Q586	A-12
Q801	D-12
Q802	G-13
Q803	E-11
Q804	B-9
Q805	F-8
Q806	G-8
Q831	E-8
Q832	E-8
Q833	E-9
Q834	E-8
Q871	J-6
Q891	J-9
Q892	J-9

RESISTOR	
R001	C-6
R002	C-6
R003	D-6
R004	C-6
R005	C-6
R006	A-8
R008	C-5
R010	B-9
R011	A-7
R012	A-6
R013	A-9
R014	A-9
R015	A-9
R016	D-6
R017	C-5
R018	C-5
R019	E-6
R020	E-6
R021	C-5
R022	D-5
R023	B-3
R024	B-3
R025	B-4
R026	A-9
R030	A-8
R032	C-1
R033	D-4
R035	C-1
R038	B-2
R039	B-2
R040	B-2
R041	B-3
R042	B-3
R043	B-3
R044	B-3
R045	A-2
R046	D-4
R047	B-2
R048	D-5
R049	D-5
R051	I-1
R052	I-2
R053	A-7
R058	E-1
R059	E-1
R060	C-7
R061	C-8
R063	A-6
R064	A-6
R065	A-5
R066	A-6
R067	B-10
R068	B-7
R069	B-6
R071	E-7
R072	C-7
R073	C-8
R074	C-8
R077	B-8
R078	B-9
R083	B-7
R084	A-7
R085	A-11
R086	A-11
R087	A-5
R088	A-5
R089	A-5
R091	B-7
R092	D-5
R093	B-7
R201	G-4
R202	H-3
R203	H-4
R204	H-4
R205	H-3
R206	H-2
R207	G-3
R208	G-2
R209	H-2
R210	H-2
R211	G-1
R212	C-1
R214	H-4
R215	I-3
R216	H-3
R217	H-3
R231	F-3
R232	F-3
R233	F-3
R234	G-4
R240	E-3
R241	E-4
R242	E-3
R243	G-2
R244	C-2
R245	E-3
R246	E-4
R247	E-4
R248	C-2
R250	E-3
R251	E-4
R252	E-3
R253	H-2
R254	H-2
R255	E-3
R256	D-3
R257	D-3
R258	D-3
R259	D-3
R260	E-2
R261	E-2
R262	E-2
R263	H-2
R264	H-2
R265	E-2
R266	D-2
R267	C-2
R268	D-2
R270	E-2
R271	E-2
R272	E-2
R273	H-2
R274	R-2
R275	E-2
R276	E-2
R277	D-2
R278	D-2
R279	D-2
R281	D-1
R282	C-1
R283	F-2
R284	F-4
R285	F-4
R291	I-4
R292	I-1
R293	I-1
R294	I-2
R295	I-2
R296	I-3
R297	I-3
R500	G-7
R501	C-13
R502	C-13
R503	C-13
R504	C-13
R505	C-13
R508	A-13
R509	B-13
R510	B-13
R511	B-13
R512	B-13
R513	C-13
R514	B-13
R515	B-13
R516	B-12
R517	B-11
R518	B-11
R519	B-11
R520	B-11
R521	A-11
R522	B-12
R523	B-11
R524	B-11
R525	D-12
R526	B-13
R527	H-10
R528	H-10
R529	C-11
R530	D-10
R531	D-10
R532	C-11
R533	C-12
R534	A-12
R535	A-12
R536	A-8
R537	B-6
R538	D-13
R539	D-12
R540	D-13
R541	B-12
R542	A-12
R543	A-12
R549	D-11
R551	B-11
R552	G-5
R553	G-5
R554	H-6
R555	G-6
R556	G-5
R557	G-6
R558	G-5
R559	G-7
R561	G-5
R562	J-8
R563	J-8
R564	G-7
R565	F-5
R566	G-6
R567	F-5
R581	I-5
R582	A-11
R583	A-12
R584	C-11
R585	C-11
R586	C-11
R587	A-12
R588	A-12
R590	A-13
R801	D-11
R802	E-11
R803	E-11
R804	E-12
R805	D-12
R806	E-11
R807	F-13
R808	D-11
R809	F-11
R810	G-9
R811	F-10
R812	B-9
R813	
R814	C-9
R815	C-9
R816	C-9
R817	B-9
R819	G-13
R820	F-13
R821	F-13
R829	B-9
R831	D-8
R832	D-9
R834	D-9
R835	E-8
R836	E-9
R837	E-9
R838	E-9
R839	E-9
R840	D-11
R841	E-8
R842	E-9
R851	I-13
R852	I-10
R853	I-10
R854	H-11
R	
R855	H-10
R857	H-9
R858	I-8
R859	H-9
R860	F-9
R861	H-10
R862	H-10
R863	G-7
R871	I-5
R872	J-6
R873	I-6
R874	I-5
R875	I-6
R876	J-6
R877	I-6
R878	I-6
R879	I-7
R880	I-7
R881	J-8
R882	J-7
R885	E-11
R886	H-9
R887	H-9
R889	G-9
R892	I-9
R893	J-9

VARIABLE RESISTOR	
RV002	B-5
RV201	G-3
RV501	C-11
RV502	B-11
RV503	B-12
RV551	G-6
RV801	F-8
RV871	J-7
RV872	I-5
RV873	J-7

FILTER	
SF201	G-4

SPARK GAP	
SG801	E-11

COIL	
T202	F-3
T203	G-3
T801	E-13
T851	H-12

THERMISTOR	
TH551	J-8

TUNER	
TU291	J-1

CRYSTAL	
X001	B-4

CIRCUIT PACK	
CP001	C-5
CP002	C-4
CP003	B-5
CP004	C-6
CP005	B-3
CP006	B-3
CP007	A-5

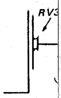
COMPONENT SIDE	
C021	**D-4**
C031	**C-6**
C032	**D-6**
C033	**C-6**
C035	**B-5**
C040	C-4
C514	C-12
C858	I-11
C877	J-6
D089	C-5
R007	D-6
R027	E-5
R028	C-5
R818	G-7
R856	D-11
R857	D-11

ACC ADJUSTMENT RV302 = B-3

1. *Turn in a strong off-air signal.*
2. *COLOR control. . . . . NORMAL*
   PICTURE control. . . . . . . NORMAL
   BRIGHTNESS control . . . . click position
3. *Adjust RV302 for suitable color intensity.*
4. *Confirm the color intensity does not change on other channels.*

PAL DEMODULATION ADJUSTMENT IC300 = C-3, RV301 =

1. *Apply Mcc potential (approx. 5V) to pin ③ of IC300.*
2. *Receive a PAL color-bar signal.*
3. *Connect an oscilloscope to the test-pin* $\boxed{B}$
4. *Adjust RV301 so that* $\boxed{B}$ *anti-PAL right section level is O.*
5. *Adjust T301 so that* $\boxed{B}$ *waveform swing stops.*
6. *Connect an oscilloscope to the test-pin* $\boxed{R}$
7. *Adjust RV303 so that* $\boxed{R}$ *anti-PAL right section level is O.*
8. *Perform all of the above steps while tracking.*

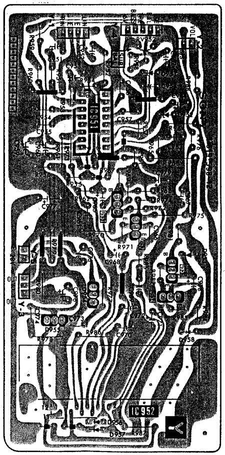


AP

1.
2.
3.
4.
5.
6.
7.

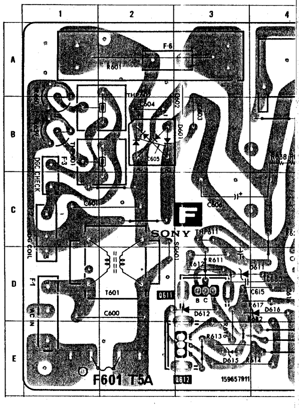
Y

[SOUND CONTROL, AUDIO OUT]



F

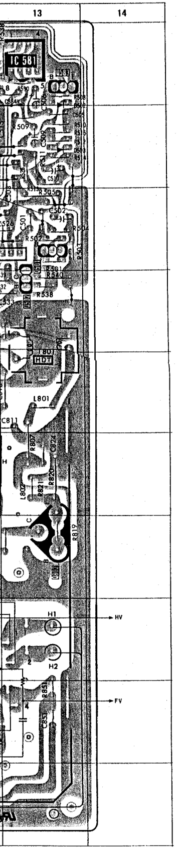
[REG OUT]



135V ADJUSTMENT RV601 = E-10

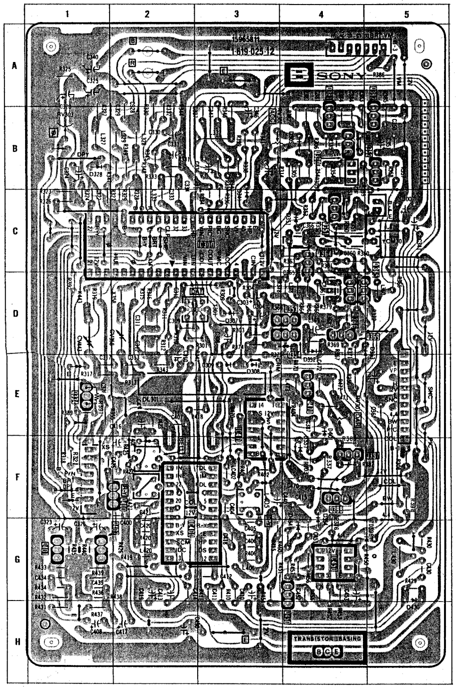
Adjust RV601 for 135±0.2V dc on the digital multimeter.

5



B

[Y CHROMA, NTSC 3.58, 4.43 SW]



ACC ADJUSTMENT **RV302 = B-3**

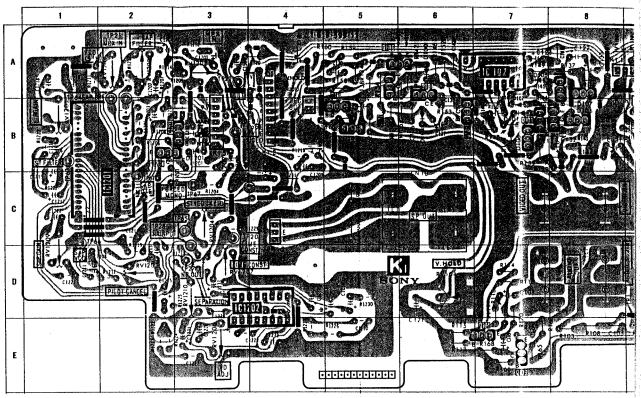
1. Turn in a strong off-air signal.

APC ADJUSTMENT **IC300 = C-3, CV443 = D-1, CV358 = D-2**

1. Apply MCC potential (approx. 5V) to pin ③ of IC300

K1

[AUDIO, VIDEO SW, MTS DECODER]

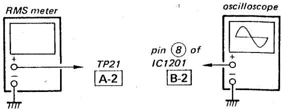


SIGNAL SET-UP

V_{MAIN} : *400 Hz SINEWAVE (0.7 Vp-p)*
(L+R) *100% modulation*
V_{SUB} : *400 Hz SINEWAVE (1.4 Vp-p)*
(L−R) *100% modulation*
V_{SAP} : *400 Hz SINEWAVE*
V_{SAP} *modulation:* *FM ±10 kHz deviation (100% MOD)*
V_{SAP} *carrier LEVEL:* *0.42 Vp-p*
SAP carrier: $5f_H$ *(78.67 kHz)*
V_{PILOT} : V_{PILOT} *LEVEL:* *0.14 Vp-p*
Carrier: *15.734 kHz*

SAP FILTER **RV1202 = A-2**

1. *Input a* $4f_H$ *(62.936 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).*
2. *Connect an oscilloscope to pin ⑧ of IC1201.*
3. *Adjust RV1202 (SAP FILTER) so that level is minimum.*

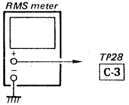


SAP VCO **RV1201 = A-2**

1. *Input a* $5f_H$ *(78.67 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).*
2. *When let the high level (move then 2.5 V dc) to pin ⑭ of IC1201.*
   At this point, let the DC current voltage to pin ㉕ of IC1201 to becomes Va.
3. *When let the low level (0 V) to pin ⑭ of IC1201.*

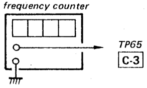
SAP LEVEL **RV1209 = D-1**

1. *Input a* V_{SAP} *of set-up signal to TP21.*
2. *Set the SAP MODE.*
3. *Connect the RMS meter to TP28 (NR-INPUT).*
4. *Adjust RV1209 (SAP GAIN) for 489 ±15 mVrms.*



STEREO VCO **RV1204 = C-3**

1. *Connect a 10 μF/16 V capacitor to TP21 (MPX IN) and ground.*
2. *Connect a frequency counter to TP65.*
3. *Adjust RV1204 for 62.936* $(4f_H)$ *±0.1 kHz.*



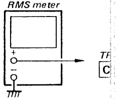
PILOT CANCEL **RV1203 = D-2**

1. *Input a* V_{PILOT} *of set-up signal to TP21.*
2. *Set the MAIN MODE.*
3. *Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter* $(f_H = 15.734\ kHz)$*.*
4. *Confirm the voltage pin ⑲ of IC1201 is 0 V dc.*

digital multimeter

(L−R) LEVEL **RV**

1. *Input a* $V_{SUB} + V_{PIL}$
2. *Set the MAIN MODE.*
3. *Connect a RMS meter*
4. *Adjust RV1205 (L−R*



VARIABLE DE-EMPHA

1. *Set RV1206 (VD AD the mechanical center.*
2. *Input sinewave of 300*
   At this point, let the le
3. *Input sinewave of 8.0*
   At this point, let the le
4. *Adjust RV1206 so tha V2 became V2 = V1 −*

NOISE REDUCTION

1. *Adjust RV1207 to obt the digital multimeter*

ACC ADJUSTMENT **RV302 = B-3**

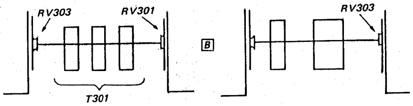
1. Turn in a strong off-air signal.
2. COLOR control. . . . . NORMAL
   PICTURE control. . . . . . . NORMAL
   BRIGHTNESS control . . . . click position
3. Adjust RV302 for suitable color intensity.
4. Confirm the color intensity does not change on other channels.

APC ADJUSTMENT **IC300 = C-3, CV443 = D-1, CV358 = D-2**

1. Apply MCC potential (approx. 5V) to pin ③ of IC300
2. Receive a PAL color-bar signal.
3. Short-circuit between the pin ⑪ and ⑫ of IC300 with a jumper wire.
4. Adjust CV443 to obtain the stable color picture.
5. Receive a NTSC color-bar signal.
6. Adjust CV358 to obtain the stable color picture.
7. Disconnect the jumper wire.

PAL DEMODULATION ADJUSTMENT **IC300 = C-3, RV301 = E-4, T301 = D-3, RV303 = B-1**

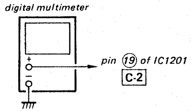
1. Apply Mcc potential (approx. 5V) to pin ③ of IC300.
2. Receive a PAL color-bar signal.
3. Connect an oscilloscope to the test-pin B
4. Adjust RV301 so that B anti-PAL right section level is 0.
5. Adjust T301 so that B waveform swing stops.
6. Connect an oscilloscope to the test-pin R
7. Adjust RV303 so that R anti-PAL right section level is 0.
8. Perform all of the above steps while tracking.



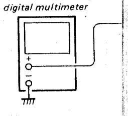
SAP VCO **RV1201 = A-2**

1. Input a 5f_H (78.67 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).
2. When let the high level (move then 2.5 V dc) to pin ⑭ of IC1201.
   At this point, let the DC current voltage to pin ㉕ of IC1201 to becomes Va.
3. When let the low level (0 V) to pin ⑭ of IC1201.
   At this point, let the DC current voltage to pin ㉕ IC201 becomes Vb.
   Adjust RV1201 (SAP VCO) so that Vb becomes Vb = Va ±0.1 V dc.

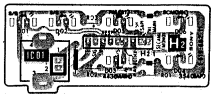
1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter (f_H = 15.734 kHz).
4. Confirm the voltage pin ⑲ of IC1201 is 0 V dc.



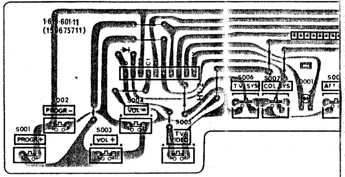
the digital multimeter



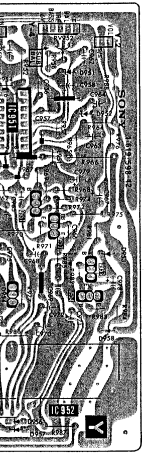
H2 [INDICATOR]



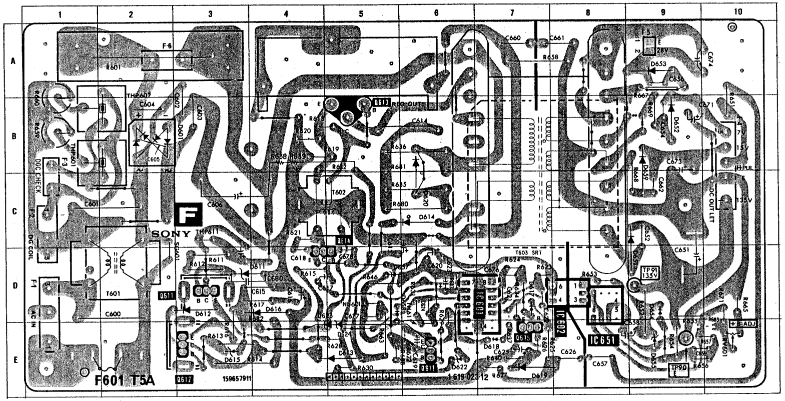
H1 [CUSTOMER CONTROL]



ND CONTROL,
IO OUT



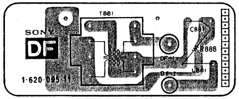
F [REG OUT]



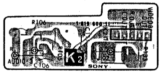
135V ADJUSTMENT **RV601 = E-10**

Adjust RV601 for 135±0.2V dc on the digital multimeter.

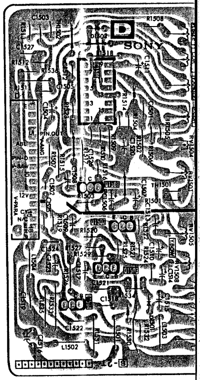
DF [BLK]



K2 [AUDIO, VIDEO INPUT]



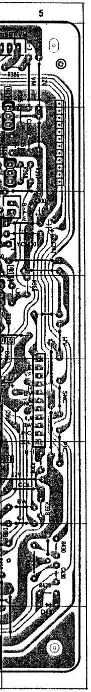
D [PIN CTRL, Y. BOW]



5

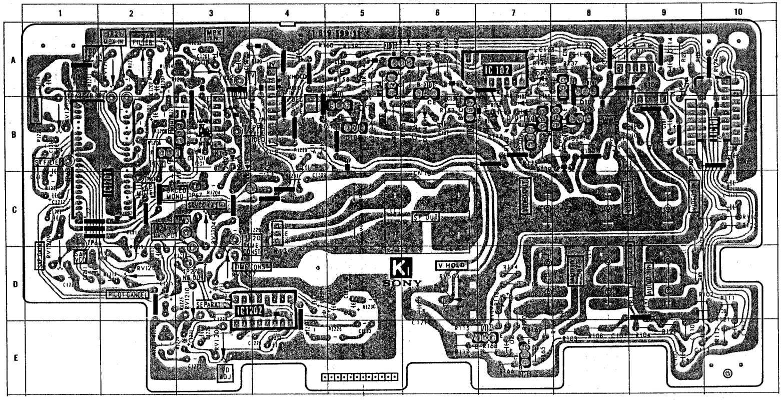
(KV-27VX1P/RM-646/SS-X4(PX))

6



IC300 = C-3, CV443 = D-1, CV358 = D-2

K1 [AUDIO, VIDEO SW, MTS DECODER]

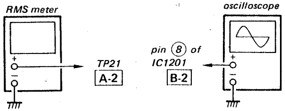


SIGNAL SET-UP

V_{MAIN}: 400 Hz SINEWAVE (0.7 Vp-p)
(L+R) 100% modulation
V_{SUB}: 400 Hz SINEWAVE (1.4 Vp-p)
(L−R) 100% modulation
V_{SAP}: 400 Hz SINEWAVE
V_{SAP} modulation: FM ±10 kHz deviation (100% MOD)
V_{SAP} carrier LEVEL: 0.42 Vp-p
SAP carrier: $5f_H$ (78.67 kHz)
V_{PILOT}: V_{PILOT} LEVEL: 0.14 Vp-p
Carrier: 15.734 kHz

SAP FILTER RV1202 = A-2

1. Input a $4f_H$ (62.936 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).
2. Connect an oscilloscope to pin ⑧ of IC1201.
3. Adjust RV1202 (SAP FILTER) so that level is minimum.

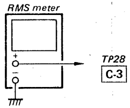


SAP VCO RV1201 = A-2

1. Input a $5f_H$ (78.67 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).
2. When let the high level (move then 2.5 V dc) to pin ⑭ of IC1201.
   At this point, let the DC current voltage to pin ㉕ of IC1201 to becomes Va.
3. When let the low level (0 V) to pin ⑭ of IC1201.

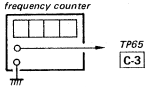
SAP LEVEL RV1209 = D-1

1. Input a V_{SAP} of set-up signal to TP21.
2. Set the SAP MODE.
3. Connect the RMS meter to TP28 (NR-INPUT).
4. Adjust RV1209 (SAP GAIN) for 489 ±15 mVrms.



STEREO VCO RV1204 = C-3

1. Connect a 10 µF/16 V capacitor to TP21 (MPX IN) and ground.
2. Connect a frequency counter to TP65.
3. Adjust RV1204 for 62.936 ($4f_H$) ±0.1 kHz.

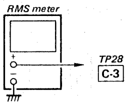


PILOT CANCEL RV1203 = D-2

1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter (f_H = 15.734 kHz).
4. Confirm the voltage pin ⑲ of IC1201 is 0 V dc.

(L−R) LEVEL RV1205 = B-1

1. Input a $V_{SUB} + V_{PILOT}$ of set-up signal to TP21.
2. Set the MAIN MODE.
3. Connect a RMS meter to TP28 (NR-IN).
4. Adjust RV1205 (L−R GAIN) for 489 ±15 mVrms.

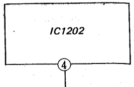


VARIABLE DE-EMPHASIS RV1206 = E-3

1. Set RV1206 (VD ADJ) and RV1210 (SEPARATION) to the mechanical center.
2. Input sinewave of 300 Hz (−21.0 dBs) to TP28 (NR-IN).
   At this point, let the level of TP27 (NR-OUT) become V1.
3. Input sinewave of 8.0 kHz (−13.9 dBs) to TP28 (NR-IN).
   At this point, let the level of TP22 (NR-OUT) become V2.
4. Adjust RV1206 so that the relationship between V1 and V2 became V2 = V1 − (11.3 ±0.3) dBs.

NOISE REDUCTION RV1207 = D-3

1. Adjust RV1207 to obtain 837 ±15 mV dc, with connecting the digital multimeter to R1229 as shown Fig. A.



SEPARATION ADJUSTMENT RV1210 = D-3

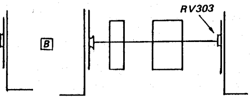
1. Input V_{MAIN} of set-up signal to TP21.
2. Set the MAIN MODE.
3. At this point, read the level to pin ㉓ of IC1201 and let it to become VL1. Then confirm that VL1 is 480 ±48 mVrms.
4. At the same time confirm that the level of to pin ㉒ of IC1201 is VL1 ±25 mVrms.
5. Input V_{PILOT} of set-up signal to TP21.
6. Input sinewave of 300 Hz (97.6 mVrms) to TP28.
   At this point, let the level of TP22 become VL2.
7. Adjust RV1210 so that the relationship between V1 and V2 become VL2 = VL1 × 1/4 ±3.0 [mVrms].

IC300 = C-3, CV443 = D-1, CV358 = D-2

(approx. 5V) to pin ③ of IC300
ar signal.
the pin ⑪ and ⑫ of IC300

in the stable color picture.
-bar signal.
in the stable color picture.
r wire.

V303 = B-1

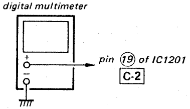


SAP VCO **RV1201 = A-2**

1. Input a $5f_H$ (78.67 kHz), 0.42 Vp-p sinewave signal to TP21 (MPX IN).
2. When let the high level (move then 2.5 V dc) to pin ⑭ of IC1201.
   At this point, let the DC current voltage to pin ㉕ of IC1201 to becomes Va.
3. When let the low level (0 V) to pin ⑭ of IC1201.
   At this point, let the DC current voltage to pin ㉕ IC201 becomes Vb.
   Adjust RV1201 (SAP VCO) so that Vb becomes Vb = Va ±0.1 V dc.

PILOT CANCEL **RV1203 = D-2**

1. Input a V_{PILOT} of set-up signal to TP21.
2. Set the MAIN MODE.
3. Adjust RV1203 (PILOT CANCEL) so that the output from pin 40 of IC1201 becomes minimum by observing it by observing it by using an oscilloscope and viewing it through a filter (f_H = 15.734 kHz).
4. Confirm the voltage pin ⑲ of IC1201 is 0 V dc.



NOISE REDUCTION **RV1207 = D-3**

1. Adjust RV1207 to obtain 837 ±15 mV dc, with connecting the digital multimeter to R1229 as shown Fig. A.

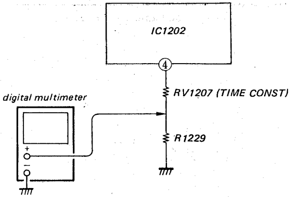
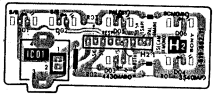
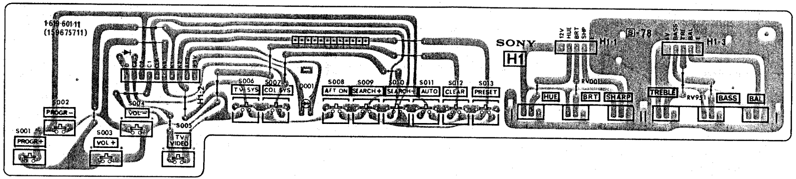


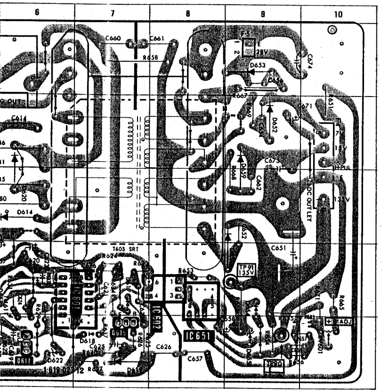
Fig. A

H2 [INDICATOR]

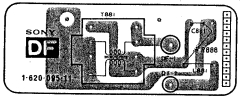


H1 [CUSTOMER CONTROL]

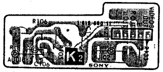




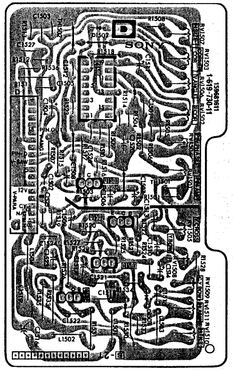
DF [BLK]



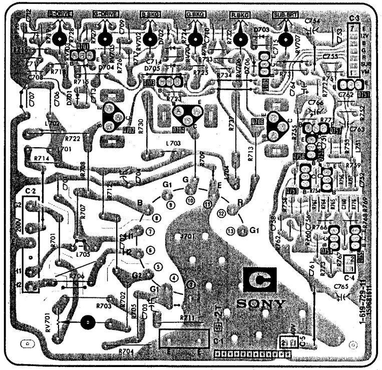
K2 [AUDIO, VIDEO INPUT]



D [PIN CTRL, Y. BOW]



C [R.G.B OUT]



Sony Corporation